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BEING THE MEDICAL SECTION OF THE
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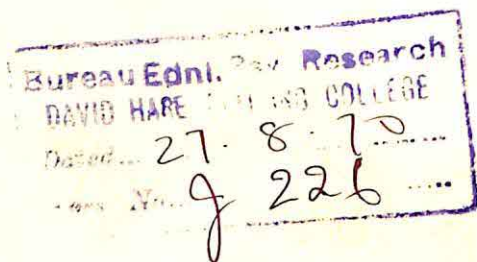
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OBITUARIES

JOHN CARL FLUGEL, D.Sc.

1884-1955

As one who played many active roles in the British Psychological Society, the loss through Prof. Flugel's death has been widely and deeply felt. Tributes to his work for psychologists and psychology have already been made, and here it is fitting to express our gratitude for what he gave to those of us in the mental health field. Flugel was one of those rare psychologists who combined a profound knowledge of general, social and experimental psychology with an equally deep experience of the approach and methods of psychoanalysis. All the books and articles which flowed from these springs made notable contributions. The publication of *The Psycho-analytic Study of the Family* as long ago as 1921 revealed him as one of the earliest British psychoanalysts, and he continued to produce from then until his death books and articles which, though ranging widely in the nature of their topics, were all characterized by the high quality of his scholarship and writing. *Man, Morals and Society* (1944) remains one of the books most widely read by those trying to elucidate some of our most pressing social issues.

Added to his intellectual gifts Prof. Flugel had those precious personal qualities, especially his friendliness, toleration and good-humour, which endeared him to all those he worked with in whatever capacity. In particular, they made him a delightful chairman who was often called upon to perform this role when audiences were known to contain strong inter-group tensions; and perhaps his talents in this respect were seen at their best when he was Chairman of the Programme Committee for the International Congress on Mental Health held in London in 1948.

My last glimpse of him, not so long ago, has recurred to my mind many times since his death, for the picture symbolizes so much of the man. I was stuck in a long evening traffic queue in Regent's Park when Flugel, bare-headed and with a benign smile, smoothly threaded his way ahead on his bicycle, and disappeared towards his home. He had just such a serene way of his own of surmounting the psychological obstructions he tackled.

J. D. SUTHERLAND

ELIZABETH NORMAN, M.A.

1900-1955

Few people working in child psychiatry have not at some time or another known Mrs Norman, and it was therefore sad news for many to hear of her death in August last. As clinician, teacher and research worker, she was outstanding. As colleague and friend, she will never be forgotten by those who had the privilege of working with her.

Mrs Norman came of a gifted family. After leaving school she wanted to take up medicine;

but her father, an artist, could not afford to finance her training. So she went to Bedford College on a small scholarship and took an Honours Degree in Psychology in 1921. She married at 23, and, when her husband was appointed to Reading University, she worked there as Assistant to Prof. Wolters for two years, obtaining her M.A. in 1929 on a thesis based upon observations of her daughter's speech development. This interest in com-

munication—or the lack of it—never left her and led eventually to her well-known work with psychotic children, and to the important contributions to schizophrenia in childhood that resulted from it.

After leaving Reading Mrs Norman trained as a psychologist under Miss Fildes at the Canonbury Clinic, and in 1931 she was appointed to the Child Guidance Clinic at Guy's Hospital where she worked continuously for nearly twenty-five years. This clinic, initiated through the pioneering work of the late Dr R. D. Gillespie, was the first of its kind to be established in a London teaching hospital. Under conditions that often called for unusual tact and resourcefulness, Mrs Norman served both clinic and hospital with unswerving loyalty and an extraordinary lack of personal ambition. She did more than anyone in that hospital towards making child psychology a vital adjunct to pediatrics and other specialities. Without obtruding herself in any way she became the mainstay of the clinic and one of the most warmly respected members of the hospital staff. The status she achieved, depending equally upon unusual personal qualities and an expert knowledge of her job, was a remarkable one for a non-medical psychologist in a London teaching hospital. As a teacher she will be remembered by the many generations of psychology students who served their apprenticeship at Guy's and who are now widely dispersed through the English-speaking world. So also will she be remembered by many psychiatrists, who in the insecurity of their early efforts, were only too relieved to be able to seek the advice of someone as essentially sane and approachable.

As a psychologist Mrs Norman had a breadth of outlook that was evident in all her work. After her academic training was completed she soon moved on to clinical psychology and psychotherapy. Thence she found

her way to the Institute of Psychoanalysis, but when the war came it put an end to her training. Thus left without formal allegiance to any one school of thought, she was free to carry out her own research work with characteristic caution about theories and premature conclusions. For as a research worker her strength lay in an unusual capacity for detailed and painstaking observation.

During the last ten years of her life Mrs Norman's interest centred upon psychoses in childhood, and in 1949 she had a grant from Guy's Hospital to further her important researches. Out of the vast amount of data she had collected she published three valuable articles on the subject in this *Journal* (21, 1948, pp. 155-70; 27, 1954, pp. 126-41; 28, 1955, pp. 1-12). She had projected at least two further publications, but it was typical of her that, in relation to the amount of work done, she was highly critical and selective in what she allowed to go to press.

No appreciation of Mrs Norman's work would be complete without mention of her outstanding ability as an administrator. On committees she was always in demand, and nearly always ready to serve. For many years she served on the National Association of Mental Health Sub-committee for the Selection and Training of Psychologists, and she was the first Chairman of the Association of Child Psychotherapists (non-medical). To all such work she gave herself unsparingly.

With a devotion that increased with the years, Mrs Norman dedicated herself to her patients, to the integrity of her scientific work, and to the future of mental health, until a fatal illness, of a kind which she had always feared, brought her life to a premature end. Next to her family, it was the work that mattered, and this was true, even to the last few days of her life.

R. L. MOODY

SYMPOSIUM ON JUNG'S CONTRIBUTION TO ANALYTICAL THOUGHT AND PRACTICE*

I. THE EVOLUTION OF JUNG'S RESEARCHES

BY MICHAEL FORDHAM†

I am glad and honoured to be the opener in this discussion of Jung's contribution to analytic thought and practice; it gives me an opportunity to elaborate my own conviction of the uniqueness and remarkable inner coherence of his researches.

Estimates of Jung's work are too often based on separate periods and thus they fail. This applies not only to the sophisticated or more openly aggressive heresy hunts, which still continue, but also to many of those obscure or even meaningless writings by some of his followers, based upon selected themes in his later works. The only way to understand Jung is to take his researches as a whole, perceiving how one stage grows out of that preceding it. Then the coherence of his whole position stands out, his unique pioneering spirit can be understood and his irrationality falls into place. It is with this consideration in mind that I intend to show how his later work is based upon and grows out of the earlier.

In 1902 Jung published his M.D. thesis 'On the Psychology and Pathology of So-Called Occult Phenomena', his first psychiatric research. The hysterical medium who was the subject of his study demonstrated many phenomena which were to occupy his interest for years to come. Autonomous figures having reference to personal and transpersonal psychic contents are clearly described; the parent imagos, the animus and a mandala reflecting a synthetic process. There are trans-

ference phenomena, and the whole subject implies his parapsychological interest. In the theoretical part is to be found the first reference to the complex and a formulation of a prospective theory of the neurosis, as the following sentence reveals: 'It is, therefore, conceivable that the phenomena of double consciousness are simply new character formations, or attempts of the future personality to break through...' (1902, p. 84).

Following Jung's first paper are a few descriptive psychiatric works, one on manic disorders of mood and several cases referred to the Burghölzli from the courts. The first published results of the association tests appear in these criminal cases.

The inspiring theme of the experimental investigations was derived from his first case study. Because the material could not be interpreted on classical psychiatric lines, Jung turned to his philosophic reading of Schopenhauer and von Hartman from whom he originally derived the concept of the unconscious. His experimental studies were aimed at converting the philosophic concept to scientific usage. In this he succeeded, placing the abstract concept on an evidential basis. He built upon the work of Galton, the father of English psychometry, and of Aschaffenburg, one of Kraepelin's team, who had worked out a method of classifying the associations. This Jung took over to develop, as Dr Eder pointed out in his Preface to *Studies in Word Association* (1906*b*), into the beginnings of his later theory of psychological types, a theory of conscious structures and functions of which the ego complex was conceived to be the central nucleus. This might have been done by any careful student of the subject but Jung went

* Papers read at a meeting of the Medical Section of the British Psychological Society on 26 October 1955 on the occasion of Prof. Jung's 80th Birthday.

† Director of the C. G. Jung Clinic and Editor of the *Journal of Analytical Psychology*, London.

further. By studying variations in the reaction times, the content of the verbal associations and reproduction of them, he penetrated behind the field of consciousness to discover the unconscious which he conceived as a network of complexes, similar in nature to the ego complex but lacking the property of consciousness.

Perceiving that the phenomena before him were the same as those which Freud had earlier discovered using the technique of free association, he wrote two papers (1905, 1906c) demonstrating the interrelation of the dream, the hysterical symptom and psychoanalysis as a whole, to the association experiments. He was thus the first to use test procedures as a means of access to the unconscious. He was also the first to validate the findings of psychoanalysis experimentally.

His extensive study of the association of normal subjects in which he collaborated with Ricklin was followed by comparisons with those of epilepsy, hysteria, and finally schizophrenia.

A. A. Brill, who went to the Burghölzli at the time these investigations were proceeding, gives the following account of the spirit in that asylum (1946, p. 10): '...after attending the first staff meeting, I felt inspired. The way they looked at the patient, the way they examined him, was almost like a revelation. They did not simply classify the patient. They took his hallucinations, one by one, and tried to determine what each meant, and just why the patient had these particular delusions. In other words, instead of registering phenomena, they went into the dynamic elements which produce those phenomena. To me, that was altogether new and revealing.' Brill had discerned the spirit of Jung which those who know him can recognize to-day.

By 1906 Jung had played the leading role at the Burghölzli asylum in founding what we now know as dynamic psychiatry. He and his co-workers had extended the application of what Bleuler had called depth psychology to a class of mental disorders whose very diagnosis had been founded upon a hopeless prognosis.

The *Psychology of Dementia Praecox* (1906a) embodies his researches; it contains the best review of the literature up to the period and a comparative analysis of two cases, one of hysteria and another of dementia praecox. He showed that delusions and hallucinations could be understood as the manifestations of complexes which he knew could be inferred in normal and neurotic personalities as well. He did not, however, press home his psychological argument concerning the origin of schizophrenia, as he did many years later, but looked for an organic basis of the disorder.

The results of the association tests led him to the unconscious and psychoanalysis provided him with a wealth of just the observations he was looking for. His position was always different from Freud, as can easily be seen by studying his writings before and whilst he was a leading psychoanalyst. I can only instance here the theory of psychic energy which is to be found in the monograph on dementia praecox.

A discerning eye can, by studying the psychoanalytic period, at once see that his creative nature was brewing new developments. Hints are revealed in the publications between 1907 and 1912.

'The significance of the father in the destiny of the individual' (1909), introduced the idea of fate and inevitability which later became classed as a transpersonal phenomenon; 'On the significance of number dreams' (1911), introduced number symbolism which later became a central feature of the images of the self and has been revived again in a new form in the recently published essay on synchronicity; there is also 'The psychology of rumour' (1910), 'The content of the psychoses' (1908) and numerous other smaller essays and critical works. The correspondence with Dr Loy called 'Some crucial points in psychoanalysis' (1914) needs special mention here, even though it comes after his break with Freud. It is significant to-day as it was then because of its discussion of hypnotism, suggestion therapy and the transference.

In the preceding year Jung set out in *The Theory of Psychoanalysis* his view of the origin

and nature of neurosis. This volume of lectures contains a good theoretical exposition of a view which has developed and changed but is of interest if only because much of it is still the subject of current controversy.

As a consequence of his researches with the association experiments Jung was impressed by what he termed the 'actual situation'. This term covers the present plus the content of its conflicts. He regarded this as the causal factor in neuroses. As a consequence of failure to adapt in the actual situation a regression takes place in which infantile memories and fantasies are revived. Thus the efficient cause of a neurosis may or may not be rooted in infancy, for the infantile material may also be an arrangement, a means of avoiding the actual situation of which they may not be a part. These alternatives he later elaborated in the theory of types.

There is no doubt that Jung was criticizing what he regarded as the excessive psychoanalytic fascination by the infantile causal roots of neuroses, but at the same time he was beginning to feel more secure in focusing attention on the potentialities lying hidden within the neurotic patterns. He was beginning to feel more certain of the existence of 'new character formulations' and a 'future personality' within the actual situation. It was his concentration on these which gave him little interest in what he terms reductive analysis. Genetic analysis would appear to me a better descriptive phrase.

At the same time, if we take this formulation together with his repeated assertion that genetic (reductive) analysis is to be preferred in the 'first half of life', it becomes evident that the past, inasmuch as it is actual, can be just as and more important than the present or future.

A highly significant part of Jung's criticism of Freud was terminological. He wanted, for instance, to change the phrase 'polymorphous perverse' to 'polymorphous predisposition', on the grounds of the generality of infantile sexuality, and at the same time removing its apparent negative evaluation by reserving for the term 'perverse' the regressive reactivation

of the phenomena. This terminological change reflects the earlier attitude of distinguishing what was normal or healthy and what abnormal or pathological. It was not a rejection of infantile sexuality; on the contrary, it was a positive estimation of it.

For some time he had been embarking upon extensive comparative studies in mythology and folklore, of which he said (Jung, 1913, p. 112): 'From the present position of this work, we can scarcely conceive what a vast perspective may result from this comparative ethnopsychology. Through the study of mythology we may expect the psychoanalytic knowledge of the nature of the unconscious process to be enormously enriched and deepened.' By the time he said this he had written the Swiss version of the *Psychology of the Unconscious* (published in 1912), of which he says (1952, viii): 'The whole thing came upon me like a landslide that cannot be stopped. The urgency that lay behind it became clear to me only later...' He had taken a case of incipient schizophrenia and analysed the material using his comparative method. He came to the conclusion that the origin of the disorder was to be traced to a presexual fixation in the mother-child relationship and in the failure of what he called 'The battle for deliverance'.

This comparative outlook, beginning with the concepts of normality and abnormality, led him to separate out the positive from the negative content of neuroses and psychoses and led him in the end to the position of saying (1939) that the only indubitably pathological phenomenon of schizophrenia was the *abaissement du niveau mentale*, i.e. the regression.

His analysis of psychic disorders corresponds interestingly with Hughlings Jackson's of neurological diseases, inasmuch as both distinguished between the positive and negative signs and symptoms; the negative ones alone are the expression of the lesion, the positive ones the release of nervous or psychic activity usually controlled and so concealed.

How has Jung developed by 1947? In 'The spirit of psychology' he spends much time discussing the views of such authorities as Wundt,

Fechner, von Hartman, Carus, Janet, in order to refute the concept that the psyche is identical with consciousness. This surprising *démarche* was no doubt, as is the case in many of Jung's lectures, partly due to consideration of the audience he was addressing, namely, the Eranos members; but it shows also his coherence. Not that he seems to have set out his views on this topic before. It was evidently Bleuler's role, in the *Studies in Word Association* to contribute a reasoned refutation of Wundt's position, to which the rest of the volume delivered the *coup de grace*. Yet those earlier concepts have clearly remained in his mind, and I mention them here because Jung's model of the ego, the conscious (mind), and consciousness are evidently considerably influenced by them. The concepts derive in part from the association theories of the late nineteenth and early twentieth century, in part from the association experiments.

A large number of the associations could be easily elicited and recalled, they were comprehensible or grammatically based, and could only be conceived as centering on a nucleus—the ego complex. Others were blocked, incomprehensible or apparent nonsense and their recall was irregular. They were so because of unconscious activity which could be brought to consciousness only by various means. If this were done the peculiarities made sense. In the *Psychology of Dementia Praecox* Jung asserts that since consciousness is linked with perception the ego must in some sense be a body ego. He says (p. 35): 'The ego is the psychological expression for the firmly associated union of all general bodily sensations.'

The firm unity of the ego runs through all Jung's work, and in the course of years the psychology of the conscious becomes greatly elaborated. He developed a distinction between the conscious and consciousness which it is essential to grasp. Consciousness is simply the quality of psychic activity in the sense that the activity is being perceived. The conscious, however, has come to refer to a class of psychic activities having the capacity to reach clear definition and can be manipulated plastically.

They can be in the field of consciousness, on the fringe of consciousness, or they can be unconscious but accessible to the ego. It is not difficult to see, therefore, that memory indicates the strength or weakness of the ego.* An interesting consideration arises in relation to repression, for Jung clearly states on numerous occasions that many repressed contents have been conscious. It would therefore be logical if these repressed contents were referred to as the repressed conscious and not the repressed unconscious as is usually done.

The concept of the conscious is important because when Jung developed his theory of psychological types he took as his point of departure the functions and attitudes of the conscious, each type being estimated from this viewpoint. In doing so he worked out a relatively complete theory of the extent and possibilities inherent in the conscious.

We can now proceed to consider what is meant by the unconscious to which Jung has given a special sense over and above the usual one corresponding to consciousness. He uses the term to refer to psychoid archetypes which cannot be made conscious but can only be inferred by the observation of a class of fantasy images called archetypal images. The archetypes are conceived as lying in relation to the unconscious complexes through which he arrived at his new conception.

Every concept or model which Jung constructs is based upon empirical observations, and I therefore intend to quote passages from a recent paper describing one evidential source of his concept of archetypes. This source is active imagination of which he says (Jung, 1947, p. 412): 'I had often observed patients whose dreams pointed to a rich store of fantasy material. Equally, from the patients themselves, I got the impression that they were

* Jung states his view of the relation of memory to the ego in *Child Development and Education* (1954, par. 103). Speaking of the ego in early years, he says of the psychic processes at this time: 'These processes, however, are not grouped round an organized ego. Consequently the child has in our sense no memory.'

stuffed full of fantasies, without being able to tell just where the inner pressure lay. I therefore took up a dream image or an association of the patient's, and with this as a point of departure set him the task of elaborating or developing his theme by giving free rein to his fantasy. . . . The result of this technique was a vast number of complicated patterns whose diversity puzzled me for years, until I was able to recognize that in this method I was witnessing the spontaneous manifestations of an unconscious process which was merely assisted by the technical ability of the patient. . . .

Jung's method of handling this material is all important. Since he was testing the hypothesis that the unconscious had 'a certain purposiveness of its own' he must aim at introducing as little of the conscious as possible. But the danger of introducing none was the excessive anxiety that his procedure introduced and so he says (1947, p. 413): 'I had to try to give provisional interpretations. . . interspersing them with innumerable "perhapes" and "ifs" and "buts" yet never stepping beyond the bounds of the pattern before me. I always took good care to let the interpretation of each image tail off into a question whose answer was left to the free fantasy activity of the patient.'

The great bulk of all Jung's later work consists in defining the general characteristics of, and regularities within, the material. One of its basic characteristics is amplification. By this is meant the tendency of one image to amplify another, and this is what substantiated the concept of archetypes as organs of the unconscious. The hypothesis is needed because the phenomena can only be explained if an essentially unconscious determinant be assumed to which the images refer. Each image, the archetypal image, reveals an aspect of it but not the actual determinant itself.

A characteristic of the archetypal image is its 'numinosity'. 'Numinosity', says Jung (1947, p. 397), 'is wholly outside conscious volition, for it transports the subject into a state of rapture, which is a state of will-less surrender.' A state in which it seems some so-

called, and even, I fear, some not so 'so-called' Jungians have got stuck.

Finally, there is synchronicity or the occurrence of meaningful coincidence in relation to archetypal activity.

There is no time to enter into the more detailed elaboration of the phenomenology which 'show in an unmistakable manner how fantasies guided by unconscious regulators coincide with the memorials of man's spiritual activity as known to us from tradition and ethnological research', (1947, p. 414). These researches are embodied in the volumes which continue to come from his pen: a radical revision of *The Psychology of the Unconscious*, *AION*, and the *Mysterium Coniunctionis*. Central in all this research is Jung's concept of the symbol.

It is not my aim to evaluate this or other concepts but rather to point to the empirical phenomena from which they arise, and to emphasize that a special attitude of the conscious is necessary for the discovery to be made. This attitude deliberately allows the free play of imagination and so involves a deliberate regression with the minimum of interpretation.

In 1914 Jung, in one of his letters to Dr Loy, described a case that he hypnotized and who declared herself cured without his having made any suggestion whatever. He says: 'There ripened in me a resolve to renounce suggestion altogether rather than to allow myself passively to be transformed into a miracle worker. I wanted to understand what really went on in the souls of people' (1947, p. 241); and in the next letter: 'I should deceive myself if I regarded my standpoint as that of a practising physician. First and foremost I am a scientist; naturally that gives me a different outlook [from the physician] upon many problems' (1947, p. 248).

These two quotations give the core of Jung's outlook. His contributions to analytic thought are all based upon observation and experiment, for his determination to allow imagination free play was a daring experiment, the culmination and realization of his aim 'to understand what really went on in the souls of people'.

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SYMPOSIUM ON JUNG'S CONTRIBUTION TO ANALYTICAL THOUGHT AND PRACTICE

II. ON JUNG'S CONCEPT OF THE SYMBOL

BY ROBERT MOODY*

I am grateful that Dr Fordham, by his historical survey of Jung's work, has incidentally introduced my subject for me. I can therefore follow on from the point where he said that central in all Jung's investigations into unconscious processes is his concept of the symbol.

In *Psychological Types* (published in 1920) Jung described exactly what he meant by a symbol. But it is clear that his concept of the symbol refers to what he later called *the living symbol*. I shall return to this important differentiation, but meanwhile I shall use the term 'living symbol' freely; because that is what Jung was really talking about.

The particular image which gives rise to a symbol may be derived from the environment or from the unconscious; and may be perceived by any or all of the senses. Jung calls this image *the symbolic expression*. The question of whether a given symbolic expression actually becomes a living symbol depends, he says, upon the attitude of the *observing consciousness*.

Broadly speaking, there are two possible attitudes. The first one is that of regarding the symbolic expression as a convenient label, an alternative description, or actually as a disguise for something other than itself. Jung regards interpretations made on any such basis as semiotic, i.e. the so-called symbol is used as a sign for something that can just as readily be expressed in the language of the observing consciousness. He shows how semiotic interpretation destroys the living quality of the symbol by explaining it in terms of something else on the 'nothing but' principle, or by reducing it to its supposedly component parts. And, in doing so, the natural

function of the symbol as a vehicle of psychic energy and as a transformer of instinct is also destroyed.

The second possible attitude is of an entirely different, not to say opposite, kind. It presupposes, to use Jung's words, 'The chosen expression is the best possible description or formula of a relatively unknown fact.' But to make sense of this statement, one must add that the description is given in what Eric Fromm has called 'the forgotten language' of the unconscious. And, what is more, this language is not translatable—at least not without much of its essential meaning being lost in the process. But, since this forgotten language was once the universal language of mankind and has remained the language of childhood and of the unconscious, it is not always difficult to relearn. I was going to say 'to relearn to think symbolically', but thinking is a function of consciousness. One can only say 'to regain the capacity for symbolic experience'. This demands from the observing consciousness what Jung has described as a *symbolic attitude*, i.e. an attitude that is receptive towards and can participate in symbolic experience without having to translate it into the cramping conceptual framework of consciousness. The living symbol is then seen to carry within it its own meaning.

But let me return for a moment to Jung's further elaboration: 'In so far', he says, 'as a symbol is a living thing, it is the expression of a thing not to be characterized in any other or better way. The symbol is alive only in so far as it is pregnant with meaning; but, if its meaning is born out of it, i.e. if that expression should be found which formulates the sought, expected or divined thing better than the hitherto

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accepted symbol, then that symbol is dead, i.e. it possesses only historical significance.'

Jung discusses these two alternative attitudes in relation to the symbolism of the Cross. 'The explanation', he says, 'of the Cross as a symbol of love, is semiotic; since divine love describes the fact to be described better and more aptly than the Cross which can have many other meanings. Whereas that interpretation of the Cross is symbolic which puts it above all imaginable explanations, regarding it as an unknown and as yet incomprehensible fact of a character that simply finds its most appropriate representation in the Cross.' This example, incidentally, shows another and most important characteristic of the living symbol, namely, that its impact has an emotional effect upon consciousness.

Jung chose to explain his concept by reference to a religious symbol of universal significance. But I must remember that an audience like this one may be as shy of religion and as suspicious of it as our parents were of sex. (And not perhaps without good reason either!) So I will hasten to give one or two other examples nearer to the sphere of our everyday clinical work.

Let us suppose that in order to explain the relation of conscious and unconscious, I were to draw the familiar diagram of a bisected circle with the lower half shaded black. This diagram is not symbolic but semiotic, because it is purely explanatory and appeals only to the intellect. But suppose I have a patient who is just beginning analysis and he tells me of a dream in which he walks into a house in which there is a large basement, and that he goes down into the basement where he meets an alarming monster. One can recognize in this dream a division between conscious and unconscious, identical with that in the diagram. But the very words with which the dreamer recounts his experience in the basement is proof not only that the dream is a symbolic expression (that is obvious) but that it has become for him a living symbol—perhaps his introductory experience of the unconscious. It is important therapeutically that the emotional impact of this

experience should not be diminished by a semiotic interpretation.

My second example purposely raises a question. A man dreams of a large stone obelisk in the middle of a square formation, marked at each corner by a smaller monument. One immediately recognizes the symbolism of the mandala which has to do with psychic integration through the function of the self. But the patient, alas! associates this obelisk with a penis; and in view of its size, it is probably father's! According to Jung's definition we might imagine that we are making—or shall I say condoning—a semiotic interpretation of a clearly symbolic expression and, by so doing, allowing the living symbol itself to be destroyed. I should take the broad meaning of such a dream with such an association as indicating that the self is still projected into the father and that it cannot begin to become conscious at all until reductive analysis has freed the patient's sexual development—and so his potential individuality—from the hold the father still has on it. But the question I want to ask is whether the interpretation of the obelisk as father's penis is a semiotic one? My own view is that it is not so. Yet I, like others, have sometimes been disconcerted by finding such interpretations described by Jung as 'merely semiotic' or 'purely sexual'. It seems to me that this curious attitude which Jung sometimes takes towards reductive analytical procedures can be adequately explained only by viewing it against the historical background.

In making the emphatic distinction between symbol and sign Jung was showing, as he has so often done elsewhere, his passionate desire to rescue the living symbol from destruction by the analytic intellect. This was a danger that he saw in the psychoanalytical movement of his time, and more generally in Western civilization as a whole. Jung fully realized that a symbol may have roots in the past, but even more fully did he realize that it had creative possibilities in the present and the future. But I wonder whether for those of us who are not involved in the ideological and personal rivalries of those times it would not

be more correct to say that reductive analysis of a symbol is not so much an interpretation of the unknown in terms of the known—I mean mother and father, etc., as personally known to the dreamer—but a tracing back of symbolical development until a point is reached when the symbol and the putative parents become inextricably mixed up, and we then have to realize that the parents, also are symbols—and so incidentally is father's penis! It is at this point also that Jung's theory of the transference as an archetypal phenomenon is relevant, as Dr Plaut will show you in his paper.

Freud and Jung looked at the problem of the symbol from diametrically opposite viewpoints. Freud, looking characteristically backward at childhood, was concerned with its reductive significance and Jung looking characteristically forward, was concerned with its creative possibilities. Those of you who have read the second volume of Dr Ernest Jones's life of Freud and have had the advantage of knowing something of what Jung's psychology is really about, will have an added appreciation of the fascinating problem of opposites encountered in the personalities and work of these two giants of modern psychology. What, indeed, could one expect but misunderstanding on both sides!

Dr Fordham has rightly stressed that Jung's researches should be regarded as an organic whole. But I would like to say here that what one might call Jung's psychology of the living symbol is, in its own right, an outstanding contribution to modern analytic thought and practice. So, before passing on to discuss the various developments in analytical psychology associated with it, I would like to give a short quotation from a critical survey of Jung's work by Ruth L. Munro, a psychoanalytically orientated American writer: 'Jung's psychology of the living symbol seems to be worthy of very careful consideration and esteem. The distinction between semiotic items (signs) and the creative transformation involved in living symbols is important. Suzanne Langer developed this point well from the philosophical point of view—inci-

dentally without reference to Jung. The living symbol does not merely represent wider experience on the *pars pro toto* principle, nor is it the agreed upon sign for highly abstract relationships as in mathematics or the exact sciences. It is creative; . . . Jung's major point is that symbols are used creatively in dreams, in art, in psychoses and in many social phenomena. Living symbols provide means of active expression leading to the resolution of the present conflict. The dream is not so much the expression of a repressed (sexual) wish as a continued effort to work out basic personality problems in the terms available to the organism.'

This brings me to the end of the first part of my paper, and before proceeding to the second part, I would like to digress for a moment. In assessing the value of Jung's contribution to modern psychological thought and practice I must remember that I am talking to an audience comprised largely of those who are concerned in one way or another chiefly with reductive analysis. Such people often wonder what analytical psychology is about because they say it doesn't seem to have to do with analysis as they know it in their own work. Though it is my firm belief that analytical psychology has much to contribute to analytical thought and practice in all spheres and for all ages, there is enough truth in this criticism to call for an explanation. This I do in justice to Jung because it is not fair to judge the work a man has done from the point of view of the work he has not chosen to do. It would be tantamount to criticizing an archaeologist because he wasn't a politician.

At the time Jung broke with Freud he put forward his own libido theory (in *Psychology of the Unconscious* (1912)), and followed this by his theory of psychic energy which even recently he has elaborated in relation to the findings of modern physics. But it would, I think, be true to say that his interest in developmental theories relating to childhood and early life was not a sustained one. His researches into schizophrenia, mythology, primitive

cultures and comparative religion led him more and more towards the study of the symbol and symbolical development in its own right. In fact his published works contain very little information about reductive analysis, a field which he gladly left to Freud, Adler and others. So much so, I may add, that we who follow his teaching have been largely left to work out our own approach and technique in this extensive field of daily practice. However, this is not to Jung's detriment because his unique value lies elsewhere.

I will now return to my main theme. All psychic development depends upon symbolization; it is symbolic development. This applies to all ages from the cradle to the grave. Through the symbol libido is transformed; in this way civilization of the race and the individual is made possible. The symbol also is the vehicle of meaning. The child lives symbolically but is unaware of meaning, because awareness of meaning depends upon a developed consciousness. But when consciousness can observe and participate in the symbolic process of development either in its projected form, e.g. secular customs, religious rituals, etc., or as immediate inner experience, then a sense of meaning and purpose is born. This is the point at which Jung's main contribution to psychology might be said to begin. You will, of course, recognize our old friends the symbolic expression and the observing consciousness, which together create the living symbol—which contains both the source of energy and the sense of meaning.

Jung's theory of the living symbol and of psychic development as an essentially symbolic process can only make sense when taken in conjunction with his concept of the unconscious. The two things belong together. Though what has been repressed is naturally in an unconscious state, Jung's concept of the unconscious cannot be explained in these terms alone. It is much more like a something that is throughout life continuously concerned with formulating and reformulating its experience of itself. This experience is the result of an

interaction between innate developmental tendencies and experience of the objective world by which these tendencies are inevitably affected. The characteristic way in which the unconscious formulates its experience of itself is by the symbolic image. Whether this image or symbolic expression is accessible to consciousness depends chiefly upon the attitude of consciousness towards the unconscious. Consciousness can, so to speak, look at the unconscious or turn the other way.

Jung's contention is that not only individuals but Western civilization in general is in the process of turning the other way—and with great determination. With the result that a widening gap appears between the conscious and the unconscious. The results of this process are familiar to us all; the conscious becomes more and more rational, and the unconscious becomes more and more destructive and dangerous. Jung's work both as scientific writer and as a therapist has been largely directed to pointing out the dangers of this widening gap and of devising ways and means of narrowing it, at least where the individual is concerned.

As Dr Fordham has explained, Jung himself found a way of consciously relating to the unconscious symbolical developments in his patients, and no doubt in doing so imparted this capacity also to them. In this way he found that the behaviour of the unconscious depended largely upon the attitude of consciousness to it. If symbolic development is interfered with by a too rational attitude on the part of the consciousness, it stops; or rather it becomes more unconscious, more projected into environment and ultimately more destructive. If symbolic development is reductively analysed, forward progress ceases and the childhood scene is re-enacted; sometimes for the better, but sometimes for the worse. But if symbolical development is watched and participated in, then one gets the essence of Jungian psychology displayed in the consulting room. To put it in another way, when the unconscious is not destructively interfered with by consciousness, it spontaneously ex-

presses itself in symbolic processes—dreams, creative imagination, etc., which (to repeat a quotation I gave you just now) are like 'continued efforts to work out basic personality problems in the terms—perhaps one could say "libidinal terms"—available to the organism'. I should like to add a rider here, namely, that it is when the libidinal terms available to the organism are inadequate that a reductive approach is needed.

When the unconscious becomes active in this way, symbolic developmental processes can be seen to occur. Though these processes are related of course to individual constitutional factors and to the formative influence of early experience, they can be regarded—and Jung has amply proved it—as a subject of study in their own right. In his prodigious literary output—the extent of which is quite unknown to most people in this country—Jung has demonstrated the almost limitless transformations undergone by the libido in innumerable patterns of symbolic development throughout the world in all ages and in all cultures. In the field of mythology he has shown extensively how the myth—the dream of the race—can be demonstrated also in the basic psychology of the individual. In the field of religion, that last refuge where the living symbol is now so often found to be moribund, he has set the cat among the psychological pigeons by taking up the position that man possesses 'a natural religious function' that cannot be explained in other terms. And finally, in his fascinating study of alchemy, which has aroused such deep suspicions of I do not know what in the minds of many who have not read the book, he has demonstrated how the old alchemists in their search for the philosopher's stone and their attempts to produce gold by the so-called alchemical opus, were really projecting into matter a symbolical developmental process, the nature of which all but a select few were sublimely unconscious at the time. They thought they were doing chemistry, but in fact they were doing active imagination.

In all this extensive and diverse material, many characteristic patterns and many typical

lines of development have emerged, so that Jung has achieved a kind of classification in terms of his own conceptual framework—namely, of the archetypes.

I would like to bring my paper to a close by referring to the most fundamental of these developmental processes—that of psychic integration through the function of the self. Jung has shown a special interest in older people who, with the help of analysis and other things, have largely grown out of and away from their infantile neuroses; and have slowly withdrawn from the outer world many projections which in earlier life normally belong there. In such people the intrapsychic derivatives of these projections thereby become expressed as symbolic images. In these states of introversion the symbolic activity of the unconscious may be greatly increased. Jung has found that in such cases a reciprocal or dialectical relationship may develop between conscious and unconscious, and that out of this there emerges a sense of objective that can be described as an inner propulsion towards the achievement of psychic wholeness; the propelling force being the self. Jung has, of course, supported his theories by extensive material from religious, alchemical and many other sources; but especially from the analysis of individual people. To show the dynamic nature of this interaction between conscious and unconscious I will quote one of Jung's many allegorical descriptions of it: 'Consciousness and the unconscious do not make a whole when either is suppressed or submerged by the other. If they must contend let it be a fair fight. Both are aspects of life. Let consciousness defend its reason and its self-protective ways, and let the chaotic life of the unconscious have its own way, as much of it as we can stand. This means, at one and the same time, open conflict and open collaboration. Yet, paradoxically, this is what human life should be. It is the old play of the hammer and anvil; the suffering iron between them will in the end be shaped into an unbreakable whole, the individual. This experience is what is called individuation' (1940).

The individuation process is the ultimate outcome of Jung's psychology of the living symbol—the symbol that first transfers libido into activity in the young, and ultimately can give meaning to life for the old. If the symbol is destroyed there is no meaning left. We fall back on social adaptation, humanitarian ideals and that sort of thing. There is no inner sense of objective. Thus, once more, we see Jung as ever looking forward, attempting to show us the goal at the end.

And so, as one looks back over the growth of Jung's psychology of the living symbol one can see many things in clearer perspective. One can, for instance, see the opposition between analytical psychology and psychoanalysis as a historical necessity arising out of

a different approach to the symbol. One can see how Jung's crusade to rescue the living symbol from annihilation led him to turn his back on reductive analysis and to concentrate on the emergent and creative aspects of the symbol, as evidenced in the adult psyche. From this he developed a psychology of adult life and of old age—a task, incidentally, that nobody else had got miles within achieving. Finally, in his psychology of the individuation process—the highest peak, as it were, of symbolic transformation—he has shown how, apart from religious faith and social props, life may be experienced as something intrinsically meaningful. All this is part of Jung's unique contribution to modern psychology.

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SYMPOSIUM ON JUNG'S CONTRIBUTION TO ANALYTICAL THOUGHT AND PRACTICE

III. THE TRANSFERENCE IN ANALYTICAL PSYCHOLOGY

By A. PLAUT*

Until Jung published his *Psychology of Transference* in 1946 (which is now contained in volume 16 of the *Collected Works*), many references and statements expressing his views on the transference had appeared in his writings. Although this exposition forms a comprehensive and significant statement, an account of the clinical phenomena of transference is deliberately omitted, and one would look in vain for a description of anything which might be called a technique. Both the reasons for as well as the consequences of this state of affairs are of great interest, and I hope to say something about both. My brief survey is divided into a theoretical and practical part. While the former is based on my selection of quotations, I found it advisable to introduce some personal views into the second part.

POINTS IN JUNG'S THEORY

Jung tells us (1946, p. 172) that after his first meeting with Freud in 1907, Freud suddenly asked him. And what do you think about the transference? Jung replied with deepest conviction that it was the alpha and omega of the analytical method, whereupon Freud said: 'Then you have grasped the main thing.' By 1946 Jung had modified his views, but in order to understand what he now means by the 'relative importance' of transference, we must bear in mind the evolution of his concepts.

In his correspondence with Dr Loy during 1913 (published by the latter in 1914), Jung stated: 'The transference is indeed at present the central problem of analysis,' and described that he turned away from hypnosis and abrea-

tion, because he felt that it was the patient's transference which produced the therapeutic effect in both (Jung, 1916, p. 270). He also discovered in his investigation of a case of somnambulism which he began in 1896, that he could have a 'certain formative influence' on the various types of personalities which manifested themselves in the patient during trance (Jung, 1925). In reading his correspondence with Dr Loy one notices in the following remarks that the views, characteristic of Jung's attitude, are already germinating: 'The patient is bound to the doctor, be it in opposition, be it in affection, and cannot fail to follow the doctor's psychic adaptations. To this he finds himself urgently compelled. And with the best will in the world and all the technical skill, the doctor cannot prevent him, for intuition works surely and instinctively, in despite of the conscious judgement' (Jung, 1916, p. 272). And again; 'Accordingly, I cannot regard the transference as merely the transference of infantile erotic phantasies; no doubt that it is from one standpoint, but I see also in it, as I said in an earlier letter, the process of the growth of feeling and adaptation. From this standpoint the infantile erotic phantasies, in spite of their indisputable reality, appear rather as material for comparison or as analogous pictures of something not understood as yet, than as independent desires. This seems to me the real reason of their being unconscious.'

There is a direct connexion between the first statement concerning the doctor's (i.e. analyst's) role and the following (Jung, 1929, p. 72): 'Between doctor and patient, therefore, there are imponderable factors which bring about a *mutual* transformation.' As Jung sees it, the analyst's influence on the patient by

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virtue of his own psychic adaptations is inevitable, while in Freudian technique, Jung says, the analyst tries to 'ward off' the transference as much as possible. I quote: 'Hence the doctor's preference for sitting behind the patient, also his pretence that the transference is a product of his technique, whereas in reality it is a perfectly natural phenomenon that can happen to him just as it can happen to the teacher, the clergyman, the general practitioner, and—last but not least—the husband' (Jung, 1946, p. 171).

Since transference, like projection, is a spontaneous phenomenon it cannot possibly be 'demanded' by the analyst, and our attention is now drawn to the fact that it is the unconscious content which is transferred on to an object and then appears to be part of the latter, but ceases to be so (i.e. is taken back) at the moment at which the subject acknowledges the content as belonging to him. 'It would be an easy matter to say that a pair of divinities is no more than the idealized parents... if the projection were a conscious process. But one may generally presume that one's own parents are well known to oneself and cannot therefore be projected. And yet the imagos of the parents are among the most frequently projected. In fact, the patient may be perfectly well aware that the father-imago together with the appropriate incest-phantasies is being projected on to the doctor and yet he behaves as if he had no insight at all into this projection. One is therefore forced to the conclusion that, in addition to incest phantasies, there are other highly emotional contents linked with the parent-imagos.... Somebody said that to the average kind of social gathering it is much more embarrassing if, after dinner, one talks about God, than it would be to tell a risky joke! And so it is easier for the patient to admit sexual phantasies about his analyst than to confess that the analyst is God or the Saviour. His reason protects him against such an illusion, but he is less hesitant to assume that the analyst could be conceited enough to think of himself as Saviour' (Jung, 1954, pp. 68 ff.).

I have quoted rather extensively in order to

illustrate the kind of evidence on which Jung's conclusion in *The Psychology of Transference* (1946), was based, i.e. 'that the collective contents of an archetypal nature are the very essence of the transference' (p. 185). I presume that it was this that was in his mind when he wrote in 1913 that 'infantile erotic phantasies, despite their undisputed reality, are analogous pictures of something not as yet understood, this... the real reason why they are unconscious'. But before he felt himself able to substantiate and elaborate his early impressions, he had devoted much time and effort during the intervening thirty-three years to major researches into mythology and comparative religion. Aided by a wealth of clinical experience, he was then able to state his views on the transference. The following is an attempt to summarize some points of cardinal importance:

(1) That the infantile sexual content of transference may conceal the patient's wish to get into intimate contact with the analyst. The feebler the rapport, i.e. the less doctor and patient understand each other, the more likely is sexuality to intervene by way of compensation (Jung, 1921, p. 134).

(2) Some markedly sexual forms of transference conceal collective unconscious contents which defy all rational solution. (Jung, 1946, p. 186).

(3) The symbolism (often based on sexual imagery) vested in transference phenomena is one of the most important means of transformation, i.e. of the progressive development of new attitudes (Jung, 1946, p. 186).

SOME CONSIDERATIONS FROM PRACTICE

As we see, no detailed theory of neurosis emerges. Jung, throughout his writings, eschews anything that savours of a technique; the idea of a blue-print is abhorrent to him. On the other hand, he perceives and distinguishes certain recurring themes or dominants which emerge from the unconscious and are clearly recognizable, despite their innumerable individual variations. They constitute essential instruments for research as well as for therapy.

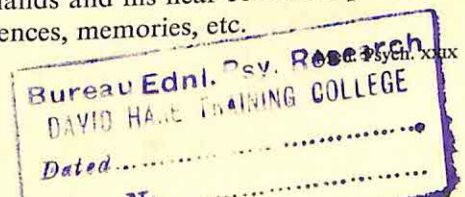
In the absence of a theory of neurosis and because Jung is so lacking in dogmatism, it is perhaps not surprising that there is no dissension among his followers over these fundamental concepts. On the other hand, even if one makes due allowance for the highly individual reactions between patient and analyst, it still begins to look as if two rival schools were coming into existence concerning the handling of transference phenomena.

To begin with, I should like to recall that in Jungian analysis, patient and analyst can see each other. This fundamental fact has far-reaching consequences on the transference situation of which I can only mention one: the analyst is together with his patient in the analysis and therefore in the transference. He is exposed to the patient's projections, which can reach him like 'projectiles.' Despite all experience and awareness, he cannot help being affected by them. The physical situation in itself makes it clear that there can be no 'warding off' no, 'blank screen' on either side and therefore also little need for the patient to 'unmask the analyst's professional hypocrisy', to use Ferenczi's phrase. The analyst is not barred from responding to the situation with his emotions. As these are touched anyhow, he need not pretend to himself that it is otherwise and he need not make any bones about it when the patient notices it. When the content of the projected material springs from the patient's personal experience and is therefore near to consciousness, it will not be difficult for the analyst to remain *relatively* unaffected or for the patient to take these projections back, once they have been made fully conscious. It is, however, a different matter with projected archetypal images; they are not only accompanied by the intensest emotions, but are also irreducible to purely rational concepts. How then is the analyst to behave in the face of such difficulties, i.e. when such contents are projected on to him and when he becomes necessarily affected by them? The projected contents, be they gods, devils, demons or magicians, make human relations impossible. But 'what would be the good of explaining', Jung writes, 'that I am

not in the least sinister, nor am I an evil magician! That would leave the patient quite cold, for he knows that as well as I do. The projection continues as before, and I really am the obstacle to his further progress. It is at this point that many a treatment comes to a standstill. There is no way of getting out of the toils of the unconscious except for the doctor . . . to acknowledge himself as an image' (Jung, 1934, p. 89). At this point there arises the difference of opinion over the handling of the situation: while both schools of thought will recognize the transference, one will deal with it by a mainly educative procedure centred on the elucidation and differentiation of archetypal contents, while analysts of the other school will accept the projection in a wholehearted manner, making no *direct* attempt to help the patient sort out what belongs to him, what to the analyst and what to neither as well as to both. On the contrary, they will allow themselves to become this image bodily, to 'incarnate' it for the patient. I should like to add that the difference between the first and second school of thought in this matter does not consist in the timely interpretation of transference phenomena (i.e. neither too early to reduce intensity nor too late to prevent disruption of the analysis), but in a totally different attitude to the transferred image. It cannot be over-emphasized that the analyst incarnates the image *in response* to the transference situation over which he cannot exert any deliberate control, and the resultant situation has therefore nothing to do with a role-taking technique. It does, however, require a great deal of skill and integrity to achieve a position from which the analyst can undergo this incarnation in *comparative* safety.

Perhaps it would clarify matters if I pointed out some of the main dangers as well as some of the requirements for this type of transference analysis:

(1) Naturally, and first of all, the archetypal image which is transferred must be recognized and distinguished from the patient's conscious demands and his near-conscious personal experiences, memories, etc.



(2) Because of the extraordinary attracting force or 'numen' inherent in an archetypal image, the analyst is in danger of becoming identified with it and may not recognize the danger, or, alternatively, he may sense the danger acutely and resist it. In neither case can he help the patient to achieve the desired dis-identification from archetypal images or mythological motifs which—as hidden ruling forces—have no regard for the patient's welfare.

(3) It follows that the analyst when incarnating such an image must be able to recognize the boundaries of his own ego as distinct from the non-ego or archetypal images.

Let us take the following representation as exemplifying what I mean. A patient insists that I am a remarkable teacher who can formulate her own confused views and thoughts in the most lucid manner. All association and interpretations in terms of her personal history have been tried, and she now avoids expressing herself in quite the same words, showing what a good pupil she is, but the image and her feeling nevertheless persist. This makes it inevitable for me to compare what she believes with what I think I know about myself. I could then think: 'Oh, yes, there is quite a lot in what she says', and find it very agreeable. This would strengthen the bond between the animus-image with which I could then identify myself and the analysis could stop on this very pleasant note. If, on the other hand, my reaction should be: 'I am nothing of the kind and I loathe teachers anyhow', I would probably be inclined to express my non-acceptance by further interpretations, elucidations and—even a bit of teaching! But, whatever my personal likes and dislikes about the teacher—as animus figure—I cannot deny that it has an archetypal or collective content, and that, for this reason alone, it must have a place somewhere in my unconscious. So I had better wait and see where this transferred image impinges on my conscious ego, or, in other words, where the boundary lies. I can then become what the patient's unconscious insists I should be, or, in my own phrase, I can incarnate the image for her.

In case all this still sounds too simple and easy, I should like to add that the skill required can never be regarded as a possession of which one may be sure, but that it has to be re-learned with each case. I have come to regard a definite feeling of *reluctance* which assails me before finally allowing this incarnation to take its course as a reliable pointer as to what will be required of me, and I think that this is what Jung is referring to when he says 'personally I am always glad when there is only a mild transference' (Jung, 1946, p. 172). Why then should one be willing to undergo this process at all with all its dangers and difficulties? What is the object? Why should one not assist the patient in a more direct and obvious manner with explanations, etc.?

It is not at all easy to put the following into words, mainly because so much of this process cannot be directed and the dangers of oversimplification and distortion are considerable in trying to describe it. Moreover, the process has no predetermined sequence and usually takes a long time. It is therefore with diffidence that I give the following summary.

After the analyst has been indistinguishable for the patient from the transferred archetypal image and its appropriate emotional valuations for a varying length of time, a certain 'subterranean undermining of the transference' (I am using Jung's phrase (1934, p. 131) occurs. The patient now notices that the powerful image changes for him not so much in appearance, as in meaning and function. To put it differently: as his ego becomes stronger, so he is able to notice the symbol concealed within the image. For these concepts I must refer you back to the expositions of Drs Fordham and Moody. Once this process has been started the analyst emerges for the patient as a person distinct from his archetypal and symbolic function. A kind of separation or differentiation has occurred between the analyst as a person and the function he has served. The fact that the patient can now distinguish between the two is, we presume, due to the development of a 'transpersonal control point' (this is Jung's term (1934, p. 231)) which frees him from

personal over-valuations and assists him to discern his position between Ego and non-Ego or Self. It is usually only from that moment onwards, i.e. when the, at first, almost imperceptible 'undermining of the transference' has begun, that the analyst can again assist with interpretations as he did earlier on when much of the transferred material consisted of projections of personal, i.e. not archetypal, material.

So much for my summary. To refer back to my example: if I can allow myself to incarnate the animus without resistance and without identification on my part, this transference will—in the fullness of time—become undermined by a movement in the patient's unconscious. As this gathers momentum, some of the energy formerly linked to the animus-image becomes freed and is now disposable, or, to put it another way, the animus can now serve her as a function rather than dictate to her. This describes the transforming process via the transference in barest outline.

There is, however, one distortion which I

want to clear up before I finish. Most papers on transference leave the reader under the impression that the analyst knew all the time what was going on. I should not like to leave you under this impression. While there is an intense transference situation, one can, very often, only sort out afterwards what has happened. At the time the affect produced by the image is frequently far stronger than anyone's consciousness.

Finally, it would be misleading to give the impression that every case makes the demands I tried to describe. Individuation remains the goal, but not everyone travels the same distance on the road leading towards it.

The approach of the second school of thought shows some affinities to Rosen's 'Direct Analysis' and Sechehaye's 'Symbolic Realization'. If I am right with my assumption, i.e. that rival schools of thought are forming within the Jungian camp, I should regard this tendency as a sign of strength and growth.

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All page references in the text refer to the latest source where more than one is given.

THE SIGNIFICANCE OF JEAN PIAGET FOR CHILD PSYCHIATRY*

By E. J. ANTHONY†

I might be asked whether I am myself convinced of the views here set forward, and if so how far. My answer would be that I am neither convinced myself, nor am I seeking to arouse conviction in others. More accurately: I do not know how far I believe in them. It seems to me that the affective feature 'conviction' need not come into consideration at all here. One may surely give oneself up to a line of thought, and follow it up as far as it leads, simply out of scientific curiosity, or—if you prefer—as *advocatus diaboli*, without, however, making a pact with the devil about it. . . .

(Freud, 1922).

The child psychiatrist to-day speaks with many tongues. He may talk with the language of the unconscious, the more familiar and conventional language of psycho-biology, or the recently acquired language devoted with seeming exclusiveness to the vicissitudes of the mother-child interaction.

He is, on the whole, more interested in tensions and conflicts than in the raw data of development, unless the latter are made more meaningful by inclusion in a unifying explanatory system. Psychoanalysis had provided him with one such system. Piagetian genetic psychology forms the only other possible alternative.

It is an ego psychology leaning predominantly to the cognitive or 'conflict-free' side. The treatment of emotional development is subsidiary to the main concern with problems of intelligence and perception. There is a

singular lack of interest in critical family relationships.

It could be supposed, therefore, that its use as a system of developmental reference would be of limited appeal to the clinician; and this, in practice, has proved to be the case. In addition, there is a sad lack of a handbook with the vast and diffuse material conveniently organized and shorn of repetitions.

On the other hand, there are good reasons for exploring the value of the system in reference to psychopathology. The chief of these to my eyes is that Piaget has not attempted this himself, although the richness of his material might well have been an irresistible temptation to a less dedicated worker. He is a genetic psychologist who has kept strictly to his field and is now leaving it to others to apply his findings. It is, therefore, data gathered without clinical preconceptions or misconceptions.

In the second place, his main investigating tool has been called by him, with some justification, a 'clinical method', because of its resemblance to the routine psychiatric inquiry. This itself would render the form, if not the content, familiar to the clinician.

Finally, both Piaget and the clinicians are interested, not in the notion or the symptom for itself, but in the underlying mental process leading up to it. For Piaget, any notion possessed by the child would at once imply a genetic series, the notion being both the end-point of the series as well as the point of departure for what he terms *genetic analysis*—the uncovering of the unconscious thought processes. He then proceeds to determine the law or laws governing this evolution, and to characterize the different stages of the development. It is clearly, then, a qualitative analysis, and it is the qualitative approach that Piaget has always sought to justify.

It is not being suggested here that modifica-

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tions of this normal genetic system will furnish us with a ready-made abnormal genetic psychology, but I hope to show that, used even directly, Piaget's concepts could make a significant contribution to a comprehensive genetic psychopathology.

We have, however, to make certain initial assumptions and inferences. The data are derived, for the most part, from researches into the intellectual development of a mixed population of normal Swiss children of whose mental and socio-economic background we are left very much in ignorance. We are required to assume that the Genevese child is the universal child, and that its maturational levels are comparable to those, say, of the primitive child. This has been warmly disputed over the topic of animism.

Our references would be from the normal to the abnormal (against the historical procedure of psychoanalysis) and from the intellectual to the emotional spheres. The latter transposition is not a large one, for although the overt treatment of affect is slight, there is an explicit assumption by Piaget that the two spheres are as related as the two sides of the same penny, and that what one says for one goes for the other. And it follows that one could not be disturbed without the other. Odier (1947) has attempted to add an affective component to the Piagetian system under the overall aegis of psychoanalysis but with very limited success. His attempt is a warning to those who would try to concoct the same indigestible mixture. On theoretical grounds there would seem to be two possible ways of reconstructing a psychopathology from normative genetic data:

(1) By movement along the genetic scale in terms of retardation, retrogression, fixation or acceleration. Stages of development could be linked by vulnerable transitional periods, potential foci of pathological disturbances, because they demand the completion of certain developmental tasks prior to further progression along the scale. Should the patient on this developmental continuum occupy a position out of step with his chronological age, he would be regarded as abnormal, abnormal behaviour

in this way being equated with anachronistic behaviour. The clinical picture would be simply in terms appropriate to the preceding or subsequent stages. This would, in fact, be too simple, since the patient inhabits an environment that may accept or reject such anachronisms, thereby setting up complicating reactions that would obscure the basic genetic picture. Nevertheless, the developmental disturbance would be primary to the environmental one, and the stage reached would provide the necessary diagnostic label.

(2) The second way could be in terms of adaptation and the adapting processes, an imbalance in the system leading to varying degrees of disturbance. A dynamic psychopathology might well be based on the malfunctioning of such intrinsically dynamic processes.

Now Piaget has built a system allowing for all these possibilities. There are well-defined stages, transitional periods, and a dynamic adaptation theory closely related to the formation and features of the various stages.

THE DYNAMICS AND STRUCTURE OF THE PIAGETIAN SYSTEM

The Piagetian system is a closed one. It does not attempt to dovetail with any other past or present psychological system. It is internally consistent, continuous, comprehensive and comprehensible. There is an interrelation between all parts, so that multiple cross-references are possible. As with psychoanalysis, it has deep biological roots. It is interesting that with respect to the two great genetic psychologists of our time, the one should have busied himself during his early apprenticeship with the study of the snail, and the other with the crayfish.

In addition to its being biological, Piaget claims for his system almost all the other modern virtues—it is genetic, dynamic, empirical and experimental.

It is served throughout by the twin adaptation processes of *assimilation* and *accommodation*.



Assimilation is the mental incorporation of the need-fulfilling sectors of the environment and entirely centred on the organism. It is typed according to the special functions of recognition, reproduction, generalization, etc. The incorporated object is related to past incorporations which have been organized within the mind in the form of elementary structures termed *schemata*. There are some hereditary schemata forming the initial matrix but they are otherwise acquired, and grow and alter in

the projection-introjection mechanisms, but includes a feed-back system of a logical machine. The logical machine might almost be described as the ego-ideal of the Piagetian intellectual system.

In the earliest stages of life, the child is less adapted to reality, and there is a primacy of assimilation—a distorting assimilation because of the lack of accommodation. As the child grows, the accommodation factor increases, until a stable equilibrium is reached,

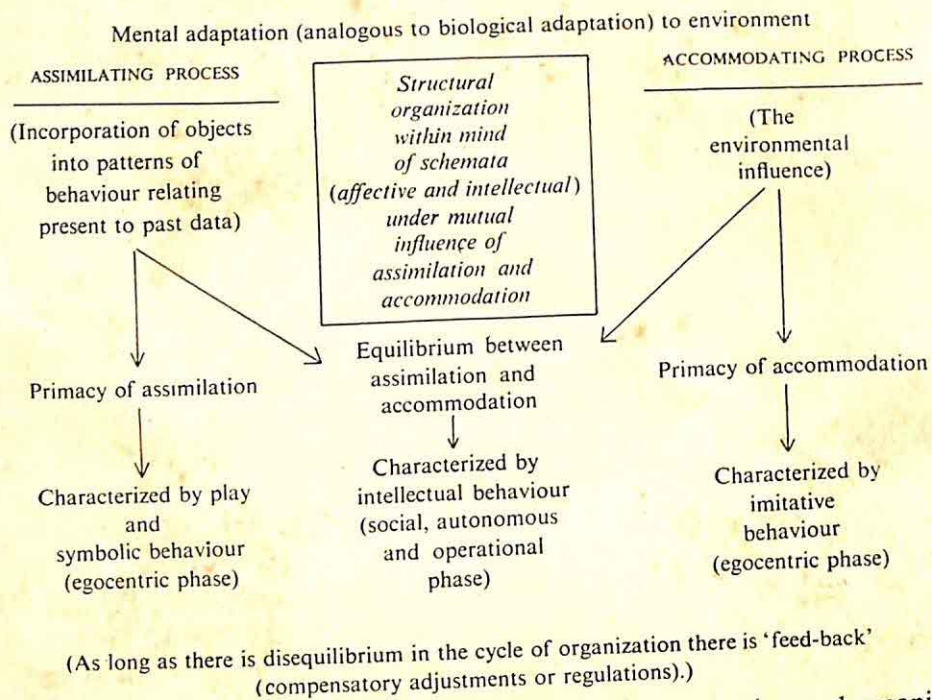


Fig. 1. The dynamics of the Piagetian system. Theory of adaptation and organization.

response to further assimilations and to the necessity of accommodating to the environment. Assimilation is not therefore equivalent to simple identification, but is the constructing agent of the mind; and the schema is not the same as the memory trace or the gestalt, but is an evolving, dynamic organization. There are intellectual and emotional schemata with their own assimilation and accommodation processes striving towards an equilibrium. The growing tendency towards equilibrium is patterned at different levels by rhythms, regulations and groupings. The assimilation-accommodation mechanism bears some relation to

which in the intellectual sphere is round about the age of 12.

Disequilibrium can be in favour of assimilation or of accommodation. If there is a primacy of assimilation, there is an introversive tendency, characterized by autism or egocentrism, fantasy and symbolic activity, and an inability to differentiate between the self and the environment.

The primacy of accommodation leads to excessive imitative behaviour, which in the extreme could lead to pseudo-personalities, with chameleon-like responses to the environment. Fig. 1 summarizes the processes.

Intellectual development

There are four main stages of intellectual development, each with an affective concomitant. The intellectual stages are practical, intuitive and operational types of reasoning, the last being divided into concrete and formal.

The affective stages have an old-fashioned look about them, and are much more derivative, the main sources being Janet and Claparède. Piaget introduces his own system of values, but it is clear that he is much influenced by Janet's conception of affect as a regulator.

Curiously enough, although his early work has done so much to pioneer the field of social perception, he goes out of his way to deny the existence of affective percepts. Fig. 2 tabulates the stages in development.

Cognitive	Emotional
(i) Sensori-motor intelligence Reflex Habits and perceptions (Primary circular reactions) Secondary circular reactions Co-ordination of secondary schemata Tertiary circular reactions Inventions	Pre-social (intra-individual) Instincts and elementary emotion Perceptual affects, elementary sentiments, pain, pleasure Elementary regulations (Janet), secondary actions, effort, fatigue, joy, success and failure
Language	Social (inter-individual)
(ii) Egocentric, representative intelligence Pre-concepts and symbolic thinking Intuition (iii) Concrete operations (iv) Formal operations	Intuitive affects (sympathy and antipathy) Moral sentiment (autonomous) Formal affects (characteristic adolescent sentiments attached to collective ideas)

Fig. 2. The Piagetian stages of development.

The clinical method

It is important, says Piaget (and I am paraphrasing him here) that you talk the child's language. If you do this, he will not misunderstand you or attempt to tease you. You must guard against the insidious pressures of suggestion and persuasion. His answers must be accepted when they conform to those given by his age group, and when they show a consistent genetic development.

At an earlier stage the method was largely

verbal, and criticism in this respect led Piaget to supplement the inquiry with the addition of experimentation or 'concrete manipulation'. Like all interrogatory methods it has been compared to the Socratic procedure. The cross-examination of the slave-boy in the *Meno* is not unlike the Piagetian method. Piaget would affirm that a thorough genetic analysis of all *Meno*'s slaves would have uncovered a genetic series and made nonsense of the *a priori* doctrine of reminiscence.

The best description of the method comes from Claparède (1926), and I cannot do better than quote it:

The clinical method is the art of questioning; it does not confine itself to superficial observation, but aims at capturing what is hidden behind the

immediate appearance of things. It analyses down to its ultimate constituents the least little remark made by the child. It does not give up the struggle when the child gives incomprehensible answers, but only follows closer in chase of the ever-receding thought, drives it from cover, pursues and tracks it down, till it can seize it, dissect it and lay bare the secret of its composition.

Psychotherapists will note how very clinical it is! The relentless drive has filled twenty volumes of original developmental knowledge.

Used in conjunction with the method are a set of six scales relating to object development, egocentrism, animism, morality, causality and intelligence, which I have adapted from the general works. They help in the classification of the clinic child. They are as yet an imperfect and crude instrument but are undergoing refinement with experience. One must add that the clinic child seems to enjoy the Piagetian procedures as much as the normal child.

THE CHILD AND THE OBJECT

Although Piaget recognizes that objects vary considerably in their emotional importance to the individual, and that each one of us establishes, quite early on, his own personal hierarchy of objects (the animate ones not being always at the top), his concern is with all the concrete things that constitute the world outside us. What he asks himself is: have things always been concrete, and has the world always been outside us? and on empirical grounds he answers both questions in the negative.

In the beginning, says Piaget, there is an undifferentiated absolute, a protoplasmic consciousness, an adualism. From almost nothing the child creates and re-creates three different worlds one after another, corresponding to the three main stages of the genetic scale. These stages are:

(1) In the first eighteen months of life the infant creates his first world—a practical world with close horizons—with the help of his sensori-motor intelligence. There is a genesis of substantial permanent objects collocated in a single space. A temporal series and a rudimentary causality are also established. At first, however, there are only fleeting images not dissociated from the infant's activity and feeling. He is the prime mover. It is only after the child has made a permanent object that he can lose it, search for it, or form a permanent relationship with it. Until the fourth substage of the sensori-motor development (about eight to ten months), the child makes no attempt to remove a cover from over a desired object. The object, it seems, like the sycamore

tree, ceases to be when removed from the perceptual field. At the co-ordination substage he begins to search for it, but only at the point of its disappearance—the object is tied to the act and cannot be separated from it. Next he will be able to find the object at various points of displacement within the perceptual range. Finally, the object can be found outside the perceptual field. It is only when the notion of the object is formed that feeling can be projected on to people considered as 'similar centres of independent action'. Constancy of shape and size are also only achieved by eight to ten months. You will observe what a peculiar object the infant is expected to form a relationship with in the first nine months of life, and it is possible that he may get quite depressed about it!

It might be argued that the breast shows evidence of consolidation much earlier. According to Piaget, however, when the infant seeks and finds the breast it is not an object; the conditions for sucking and the feeding postures are sufficient to account for observable behaviour, without involving the introduction of complex schemata.

It would also follow that before the seventh month, the infant cannot be separated from an object-mother firmly and substantially localized in space, as an organized reality. His separation feeling must therefore lack the quality of separations at a later stage.

In order that the next world be conquered, images and words must appear, and space must be extended beyond the distant receptors. The world must be co-ordinated with the world of other individuals.

(2) Between two and seven the child constructs a representative world. He repeats the evolution completed on the sensori-motor plane. The object is distorted by the egocentric perspective of the child, and is alive. Imitation and suggestibility are at their maximum.

(3) Finally, at the ripe age of eight comes the world of the autonomous individual, whose thinking is governed by mobile, reversible operations, and whose social behaviour is determined by objectivity and respect for the

point of view of others. It is only in this world that there is a conservation of the matter, weight and volume of the object.

Fig. 3 summarizes these developments.

SOME CLINICAL CONSIDERATIONS

We have found curious disturbances of object and space-time development in the psychotic child, measured on the Piagetian scale of object development.

He showed anxiety on admission to hospital from home and anxiety on discharge from hospital to his home, when his established routines were upset, but no evidence of genuine separation anxiety.

He is very hungry and there is a sweet on the table. He rushes to grab it but a bit of paper is placed over it. He begins to do something else. He is left alone in the situation. Is it possible that he is polite or inhibited? In all other respects his behaviour is primitive and unre-

Possible clinic references:
The psychotic and defective child

The creation of the object

Genesis of world of permanent objects in time and space
Constancy of the object
The disappearing object

The conservation of the object

The plasticine game
Conservation of matter, weight, volume

The symbolic object

The absent object and its representation
Primary and secondary symbolism
Assimilation and the unconscious

The 'punishing' object

The incidence of immanent justice in the moral development of the child

The death of the object

The passing of the animistic phase

The 'emotional' object
The hierarchy of objects

Fig. 3. The Piagetian system of object development.

A mute, vegetative child, functioning at an idiot level, treats fruit and food illustrations in magazines as real and attempts to scratch them up and eat them and shows frustration at his lack of success. But if the page is turned he makes no attempt to come back to it.

He plays with two objects without any regard for their purpose in an aimless, repetitive way. Two other objects can be substituted without any change in the mode of activity. The object has no identity. On taking away one object, without his being aware, he shows no evidence of missing it, nor does he hunt for it.

strained. The test is repeated over and over again with the same result.

A long series of sweets are placed under a long series of little cups. The first is lifted; he sees the sweet and grabs it. This is repeated up to the twelfth cup. There is no attempt to uncover any himself, or, as he does in other situations, use the experimenter's hand to obtain the desired object. He seems unable to make the elementary education that something can exist although it cannot be seen.

Two years later, having lived in a children's community and received psychotherapy, he no longer scratches at food pictures, and he

searches for sweets but only at the point of disappearance. He is capable of recognition.

This psychotic child had created his practical universe before being overtaken by the psychotic process. He had made objects and had lost them again. As long as his objects remained impermanent, object relations could hardly hope to be anything but transitory and food-determined. His experience of solid foods and tactile explorations of solid objects do not seem to help him to the appreciation of the permanent object. He manoeuvres himself well in space and shows only limited ability to anticipate. Space remains single and unchanged; time becomes tied to the moment of experience, the object loses its permanence and substantiality. He is unable to distinguish between the two-dimensional image and the concrete object. Other mute psychotic children show different degrees of object loss. None of them function beyond the sensorimotor level.

It would seem therefore that these children have regressed to a truly objectless state where the object could be shown not to exist in actuality.

THE OBJECT AND THE SYMBOL

The symbol of an absent object appears in development at about the same time as the word. Between four and seven is the great symbolizing period of childhood due to the primacy of assimilation. The less assimilation is fettered to the accommodation process, the less adapted is the child to reality, until the conscious symbol is replaced by the unconscious one. The same holds for the dream situation. The better adjusted the child, the more is his play integrated into his intelligence, and the more the symbol is replaced by constructive and imaginative play.

It would seem, therefore, that a turning away from the real object to a symbolic one is part of the normal genetic process and characteristic of the maladaptation of the period. It is nothing new to say that there are many abnormal periods during normal development. Therapeutically, the reconversion of the

symbol into the object by means, say, of interpretation should lead to a healthier adaptation. However, round about the eighth year, the symbol begins to fade spontaneously into a mere image, and the last traces of symbolic play come to an end by twelve. Many neurotic conditions of childhood show a marked persistence of this symbolizing activity, but it would seem that a genetic diminution can be anticipated in later childhood. Such a resolution may be another example of growing out of symptoms which every child psychiatrist can observe for himself.

THE PUNISHING OBJECT

There is a pre-logical rule deep in the mind of the egocentric child. Piaget refers to it as the need for justification at all costs with the spontaneous belief that everything is connected with everything else, and everything can be explained by everything else. His reasoning is syncretistic and governed by mechanisms only to be found in dreams. At this pre-causal stage there is, as Piaget puts it, an astonishing capacity for meeting any question with an answer, and he compares them, in this respect to the paranoid psychotics in a description given by Dromard (1911). They showed 'imaginary reasoning', the connecting up of interpretations, the fortuitous spread of interpretations around a central idea, and a tendency to find a hidden meaning in every event.

To the paranoid pattern characteristic of the normal child's thinking during this unstable period, Piaget adds another underlying propensity—a belief in immanent justice to the extent of about 90 % of cases at the age of six. With backward children and disturbed children with masturbatory difficulties, and above all children with paranoid phobias (fears of being poisoned, etc.) the belief is stronger and more persistent. Piaget uses the open-end story to explore the tendency.

The teacher forbids the children to sharpen their pencils themselves. When her back is turned one of the children takes the knife to do this and cuts his finger. If the teacher had allowed him to sharpen the pencil, would he still have cut himself?

The children of this period are unanimous in their opinion. He cut himself *because* he touched the forbidden object; if it had not been forbidden to do so, he would not have cut himself. The children cannot be credited with the sophisticated view that anxiety and guilt can lead to the accident-proneness, although I have had this explanation from a twelve-year-old girl. The story completion makes it clear that the external object may under certain circumstances attack and punish the child. If this is the case, it is possible that excretory objects, such as faeces and urine, may become attacking and punishing agents in situations of toilet disobedience. A not infrequent response on the animistic scale in neurotic children (I have not yet tested normals in this respect) is that faeces are alive, have feelings, have to make up their own minds about staying in or coming out. As one little girl put it: 'its so cold for them outside—I don't expect they like coming out.' She suffered with severe constipation, often with faecal incontinence.

Taken together, the paranoid pattern of thought at this stage with the belief in the living, attacking, punishing character of the object in situations of disobedience, there would seem to be some basis for certain psycho-analytical interpretations.

THE DEATH OF THE OBJECT

The Piagetian object 'dies' slowly towards the end of childhood. Below the age of six, the objects in the child's world are all alive. There is very little attempt at discrimination. Later he limits this belief to things that move and still later to things that move spontaneously. By eleven the world of inanimate objects is quite dead, or should be. Certain 'adherences' (? fixation phenomena), as Piaget calls them, of infantile animism may persist even into adult life.

These beliefs undoubtedly contribute to the bewilderment of children over the problem of death. This applies especially to clinic children who are brought with fears of death and dying. If all the world is alive, how can

one die? He can either not think of death at all, or think of it exclusively in terms of separation. It is only at the age of ten and eleven that the completely biological interpretation is given without any adherences, and this is when the crisis associated with the fear of dying usually brings the child to the clinic. Until then his animism protects him against the fearful, 'authentic' (as the existentialists term it) view of life. The end of animism marks the beginning of a new set of fears.

It is worth noting that the appearance and disappearance of the object, which helped Piaget to formulate his empirical theories on the construction of reality and the importance of the circular repetitive reaction (which is a cornerstone to his intellectual system), led Freud to postulate his fundamental principle of repetition compulsion.

THE YOUNG CHILD'S MODEL OF THE UNIVERSE

'The child's universe', says Piaget, 'is not a system of blind forces regulated by mechanical laws operating on a principle of choice. Nature is a harmonious whole obeying laws that are as much moral as physical, and that are above all penetrated down to the least detail with anthropomorphic or egocentric finalism.'

There is a basic adualistic confusion between inner and outer worlds, between things and their names and the thoughts about them. It is a period of *infantile realism*, when the child materializes his inner world and animates his outer world. In a loose, analogical sense, this animistic-realistic-artificialistic complex is the Oedipal equivalent of the Piagetian system. Its universality has been claimed, challenged and vindicated. (I am thinking especially of Russell's *Studies in Animism* (1940a, b).) Its resolution leads on to a new social phase of life to which the child shows a much better adjustment. The passing of egocentrism is brought about by the emancipation from parental dominance and participation as an equal in a social group.

This is, therefore, a pre-social, pre-causal

and pre-logical world, and we may well ask ourselves: how frightening is it? This is the period when phobias present themselves in abundance at the clinic. It is the period of fantasies fed on the all-pervasive animism. After the age of seven, as Jersild (1935) has shown, fears and anxieties are largely social.

The normal child, secure in a well-integrated family, may show little evidence of these beliefs during the day, but with the coming of night, the animistic world can bring fears to all children. The sensitive child will show evidence of day terrors and score highly on the animistic scale.

In a current study of nightmares and night terrors, we are finding an accentuation and persistence of animism. For many, nightmares are substantial, external and punitive, often introduced into the house by the bad character portrayed in them. The 'dream screen' of childhood may be as substantial as a cinema screen.

In the animistic enquiry, a neurotic child may provide unusual answers although he may still give characteristic Piagetian responses:

Age range: 4-10

Misinterpretation of perceptual data due to distorting assimilations
A dualistic confusion of sign with thing signified
Internal and external thought and matter
Subjective and objective

Possible clinic references:

Sensory deprivation

Phobic child

Psychotic child

State of infantile realism

Analysis of

Thought realism dream realism
Magical thinking and 'participation'
The world of shadows
An anthropocentric illusion
'Substantialism'

The animistic state

Stages

All things have life and consciousness
Things that move, things that move spontaneously
Animals and plants
Anthropomorphic traits

The state of artificialism and pre-causality

Problems of pre-existence

Man-made world
Association with birth fantasies
Parental omnipotence
Artificialistic myths
Infantile theorizing
Causal relations, magical and finalistic
The coming of night

Gradual resolution by social interaction

Fig. 4. The Piagetian child's model of the universe.

'Is it alive?' 'It is if it's *happy*.' To each is added the criterion of happiness. It seems that life and unhappiness in this case are incompatible. (This was from the protocols of a separation case.)

Children with a psychosis, who retain their verbal ability, show marked evidence of spontaneous animism. The moon, the lights, shadows, and reflexions become fearful objects. This is also true of children with sensory deprivation. I have had a little blind child referred to me as a psychosis, because he manifested a persistence of infantile animism. As one would expect, I have not found that intellectual explanations have helped at all to relieve the anxieties of children with phobias when these are based on animistic conceptions.

The model we have been discussing is also intimately related to the child's body feelings and more particularly to his artificialism—the inherent belief that everything is God-made or man-made. Rivers originate from urinary streams, and, as Piaget put it, 'even wind in the intestines plays a part in forming the child's conception of the world'.

EGOCENTRISM

In the first year of life there is an absolute egocentrism, which Piaget equates with Freudian narcissism (but without Narcissus or self-awareness). Later it forms an intermediate stage between infantile autism and the social stage. The process of differentiation between ego and world is still incomplete. The child is at the centre of the universe and the egocentric perspective is subjective, absolute and incapable of allowing for another viewpoint. The child feels no need to communicate or receive communications, to understand or to be understood (see Fig. 5).

understanding for each type of transmission. The figures are not encouraging to the hopes we place on all our therapeutic interpretations. It is not simply a question of being concrete and simple; there is an actual blocking factor to the communication process.

(3) The child is asked to identify himself with a little child figure set in a model of three mountains. He is then asked to choose from a set of pictures the perspective possible to the little figure. His ability to identify with the viewpoint of the figure, or, to put it in another way, his inability to shift his egocentric perspective is given a measure.

Primacy of assimilation
Over accommodation
Distorting assimilations

Genetic process of differentiation
(Resolution of adualism)

Possible clinic references:
The asocial child
The regressed child

AutismEgocentricitySocial Phase

Likened to primary process
of psychoanalysis

Transition phase

Double orientation
The coefficient of egocentricity

Reality principle and secondary
process of psychoanalysis

Genetic evolution

Investigations

Personal viewpoint
Viewpoint of other people
considered

Studies in communication
(a) Analysis of serial records

(b) Passage of information
Stage of pseudo-communication
(soliloquy, collective monologue
and fantasy, no exchange or
modification of opinion)

'Viewpoint' of objects con-
sidered

The child in the mountains
The attendant moon and sun

Fig. 5. Egocentricity.

There are several ways of measuring its intensity and persistence.

(1) A functional analysis of language (which these days can be done more easily on a tape recorder) can furnish a coefficient of egocentrism which is relatively constant (see Fig. 6).

(2) By the analysis of a transmission of information from adult to child, and from child to child. This study supplies a coefficient of

(4) The egocentric illusion that the sun and moon follow us around is strong below the age of seven. It is associated with animistic beliefs. The critical question asked by Piaget is this: If you were to run in one direction, and one of your friends were to run in the opposite direction, what would happen? For the under sevens there are no two answers with regard to celestial favouritism.

A child of eight, however, said that it depended on whether you really liked them or not.

THE AMBIVALENT MOON

An illustration from William James (1892) will indicate how deep is the basis of animism and how persistent in certain predisposed cases of

had disappeared. By moving his head in four different ways while watching the moon he tried to prove whether it was alive or not.

It is not difficult to imagine that a phobic child could create a system of fear in this way.

What is the significance of this egocentric attitude for the clinician? With its accompanying syncretistic thought implying con-

(Analysis of language)

Functional categories	Childrens groups (Age groups 5-7)
Egocentric speech	Socialized speech
Repetition (echolalia) 1-5 %	Adapted information 15 %
Monologue 5-15 %	Criticism, derision 3-7 %
Collective monologue 20-30 %	Commands, requests 10-15 %
All forms of monologue 35-40 %	Questions, answers 14-18 %
Interrogatory forms	General features
Casual questions less than 1 %	Egocentric language 40 %
Factual questions 15-25 %	Spontaneous socialized language 50 %
Actions and intentions 50 %	Socialized language 60 %
Classificatory 20-30 %	Coefficient of egocentrism Eg.L/Sp.L = 0.30-0.60
Numerical 2-3 %	Mean variation 0.04
Remarks	Transmission of information
No sustained social intercourse under the age of seven. The child is 'thinking aloud'. Verbal incontinence with no secrets. No causal 'why'. No argumentative 'because' or 'since'. Serves to reinforce gesture	(Coefficients of understanding) 0.50-0.70 for child-child situation, and slightly better for adult-child situation

Fig. 6. Studies in communication.

those with sensory deprivation. He tells of a deaf mute (who later became a professor), who was much preoccupied with thoughts of the moon. He wondered why it appeared regularly; thought it must come out to see him, imagined it smiled and frowned; discovered he was beaten more often when it was visible; it watched and reported his misdemeanours, it followed him everywhere. Could it be his dead mother; he used to go to church with his mother, and he went to church thinking the moon wanted him to go. His conscience developed thanks to the moon. It was a full moon when he discovered the money he had pilfered

and over-determination, does it provide a matrix for symptom formation? Or is it perhaps an index of neuroticism when it persists? We are not yet in a position to answer these questions. What we do know is that many disturbed children give a high coefficient.

The relationship between normal and abnormal is often difficult to decide. Syncretism is a normal genetic occurrence, but its qualities are next door to those of the symptom. The symptomatic picture often has a polymorphic appearance in early childhood. The monosymptom tends to arrive a little later.

THE MORAL IMPULSE IN THE PIAGETIAN SYSTEM

The comparison here with the psychoanalytical system is inevitable and centres around the timing of the internalization process. On the orthodox Freudian scale, the internal standard comes into being about the age of four or five, although such time relations are relative to the

sibility) a second morality appears, which is internal and autonomous, and based on equality and equity and reciprocal experience.

Piaget has explored this authoritarian phase with his habitual Linnaean classificatory zeal and a diagnostic scale can be extracted from his study.

It may be possible to relate delinquency to

Not a personalistic psychology		Possible clinic reference: delinquency
Unconscious Egocentric Anarchical personality		Conscious The 'social self' based on norms of reciprocity
<u>Moral realism</u>	Process of socialization Process of internalization	<u>Moral relativity</u>
The 'two moralities' of the child (Durkheim)	Authoritarian phase based on constraint and unilateral respect	Democratic based on co-operation and mutual respect
'Rules of the Game'	Coercive rules	Rational rules
Moral sense	External and Heteronomous directed by rewards and punishments	Internal and autonomous (moral action sought for itself)
Sense of fairness	Subordinated to adult authority	Based on equality and equity
Behaviour	Conformative	Co-operative
Choice of punishment	Expiative	Reciprocal
Justice	Retributive and immanent	Distributive

Fig. 7. The personality development of the Piagetian child and the development of moral judgement

individual child. For Piaget, the internal standard arises somewhat later, about the age of seven. Until then the censoring element remains external. The child responds to parental prohibitions in an apparently compliant way, but there is no deep acceptance of such rulings, no inner model of conduct. The child's moral judgement is a superficial, distorted copy of parental attitudes. During this authoritarian phase, rules and regulations are sacred and immutable; it is the 'red tape' period of childhood. This primary heteronomous morality is realistic. Crime is intimately related to punishment. Things are wrong if you are beaten for it. Punishment should be in proportion to the material size of the damage. Punishment is expiative, and there is no substitute for it.

At seven or eight (the legal age for respon-

authoritarian fixation. It is after the age of eight that such findings become abnormal. The authoritarian character as described by Piaget has more than a family resemblance to the authoritarian child described by Frenkel-Brunswick (1948, 1951) and others, and to the sado-masochistic character of psychoanalysis. The Frenkel-Brunswick type can be diagnosed by a battery of perceptual tests. The use of these techniques coupled with specific experimentation of the Hartshorne and May variety and psychodynamic exploration may lead to aetiological factors, or failing that, to a clarification of the obvious discrepancies existing between the attitudes, judgements, sentiments, personality, motivation and opportunity in the young delinquent.

Fig. 7 summarizes the points.

PROBLEM-SOLVING BY THE PIAGETIAN CHILD:
THE MATHEMATICS OF BEHAVIOUR

Although the development of intelligence is at the heart of the Piagetian genetic system and the focus of Piaget's own preoccupations today, I have decided to leave the cognitive possibilities to the last. One reason for so doing is to lay emphasis on the fact apparent throughout this survey, that the clinically significant data for which we are searching are more likely to be found in the byways than in the highways of the system. There is the added point, that, as clinicians, our interests are heavily biased in the direction of the affect, intellectual problems generally receiving little more than a mental measurement in the average child psychiatric practice.

It must be remembered that Piaget is very little concerned with quantitative factors or in measurements for the sake of measurement. It is the qualitative analysis, genetic and logical, of the actual mode of thought to which he is attentive. For him, intelligence is an evolving process continuous from neonatal life and undergoing successive qualitative transformations in the course of time as a result of active interplay between organism and environment. It is inextricably linked with affect, and this 'working partnership' governs the total mode of behaviour. It is the affect that prescribes ends, evaluates them, and provides the energies necessary to reach them. It is the intelligence that finds means to these ends.

Problems create a maladaptation, and affect initiates a striving; intelligence operates with various *combinations* to effect an equilibrium. There is an emergence of new mental operations (relational schemata or groupings) at each maturational stage of neural organization and with development, thinking becomes gradually internalized.

The important clinical implications are these: if intelligence reaches back in this way to the beginnings of life, and if it is always so closely tied to affect, then it follows that intellectual disturbances must have deep roots and deep emotional components. These may take the form, as Piaget puts it, by analogy with

psychoanalysis, 'of unconscious fixations on what may be called repressed intellectual *complexes*'. (Although this implies the existence of an intellectual 'unconscious' it should be noted that Piaget's 'unconscious' is made up of his *schemata*, and is closer to Hartmann's understanding of the term than to Freud's, being altogether 'a more functional and less topographical' interpretation of the relationship of conscious to 'unconscious.' It is not a 'second chamber' but an extension of the first.)

This 'deep' aspect of intelligence, and this 'dynamic' association with affect may help to throw light on the learning disabilities and the bad habits of thought, that present themselves to the clinic in the guise of so-called 'pseudo-retardations', magical thinking, syncretisms and incapacities to generalize or abstract. The extent and 'depth' of the disability may be demonstrated by a radical and systematic analysis of the thinking process.

How can this be carried out? The child is set a problem to solve—a simple chemical or physical experiment—and he is given full opportunity to manipulate the material. His attempts to acquire the new knowledge entailed in the problem can be stratified in a genetic series, passing from 'transductions' and 'intuitions' through the logical understanding of relations and classes, seriations, symmetries and lateralities, to the final stages of hypothetico-deductive reasoning with the employment of combination systems of propositional logic. (See Fig. 8). These systems are represented in the symbolic language of non-numerical mathematics by abstract *groups*, which are logical structures to some extent it is hoped, isomorphic with mental structures (see Fig. 9). The groups indicate sets of transformations, characteristically reversible, reciprocal, and in a state of dynamic equilibrium.

This is the language that we are all 'unconsciously' using to solve our daily intellectual problems, although like Molière's gentleman, we may not have recognized it; and if this is the new, precise and compact language of intellectual behaviour and an adequate reflexion of

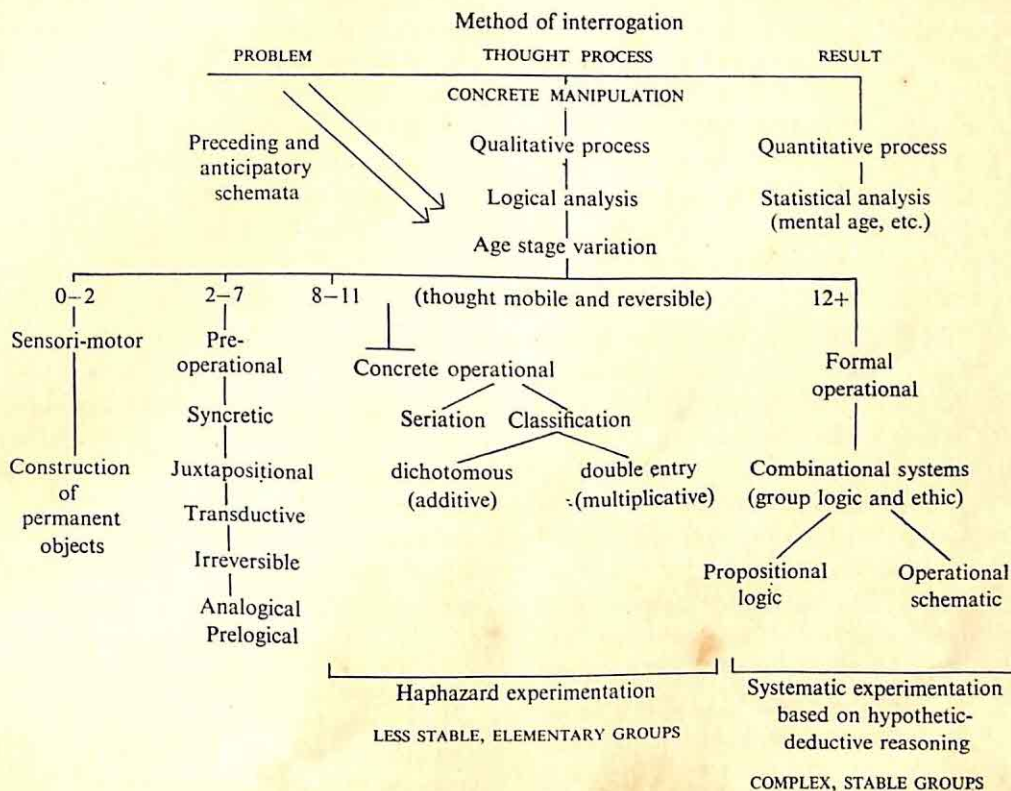
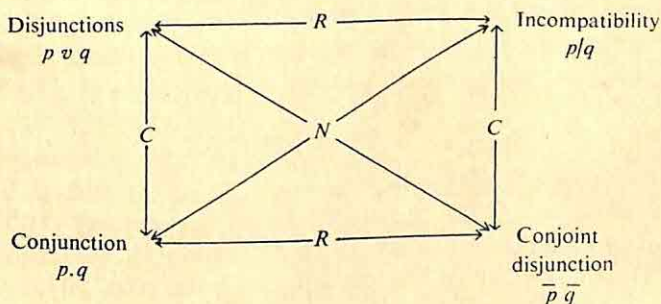


Fig. 8. Problem-solving by the Piagetian child. Possible clinic reference: learning disability.

The construction of algebraic structures isomorphic with mental structures

The INRC group system of transformations



p and q are propositions
 $\vee$ = or (logical addition)
 $.$ = and (logical multiplication)
 $-$ = not (negation)
 $/$ = incompatibility

I = identity
 N = inversion
 R = reciprocity
 C = correlation

Fig. 9. The future language of psychology. The structure of propositional operations.

mental events, it might be assumed to apply with equal effect to emotional conduct. It would, indeed, be a blessing if at last the many tongues could share a common language free from ambiguity. Unfortunately, there is in most of us a strong intellectual resistance to mathematical language and a preference for expressing clinical findings in the diffuse and comfortable terms appropriate to the 'intuitive' style of thinking.

Piaget's psychology has parcelled together the three, usually considered anarchic functions of thought, perception and affect, thus directing the clinician to inquire in every thinking disturbance, how much is the feeling at fault? and in every feeling disturbance, what has gone wrong with the thinking? and at what stage of the thinking process? An I.Q. is no longer enough. Within the new discipline of *genetic epistemology* one must look more closely at the whole process of the acquisition of ideas. It is not sufficient to understand the dynamics of feeling; we must also understand the genetics of thinking, after which we may claim with greater truth that we really understand our patients. Our present understanding is too lop-sided.

SUMMARY

I have tried to show the possibilities latent in this massive psychological system, which Piaget has built up over twenty years of patient investigation. It has the limitations inherent in most 'one-man' systems, being too self-

contained and inclined to parochial self-reference. Nevertheless, it has some ramifications with the outside psychological world. Concept borrowing is a feature of most systems and Piaget's is no exception. He is a 'creative borrower' of genius, transposing and amplifying all that he borrows, whilst generously acknowledging the source (see Fig. 10). It is

Concepts	Source
Circular reactions	J. M. Baldwin
Adualism	J. M. Baldwin
Assimilation-imitation theory	J. M. Baldwin
Transductive thought	Stern
Participations	Levy-Bruhl
Syncretism	Renan, Claparède
Artificialism	Brunschwicz
The double morality system	Durkheim, Bovet
Functional stages of development	Claparède
Environmental interaction	Maine de Biran
Regulations	Janet
Autistic stage	Freud
Narcissism sans Narcissus	Freud

Fig. 10. Creative borrowing in the making of a system.

about time that we began borrowing a little from him. With judicious selection it should be a rewarding undertaking.

It is not a system that we can afford to ignore in our clinical practice to-day.

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SPEECH-BREATHING ACTIVITY AND CONTENT IN PSYCHIATRIC INTERVIEWS

BY FRIEDA GOLDMAN EISLER*

In a previous paper the writer (1954) described a new method of measuring the emotional charge of different utterances made in the course of interviews. The method is based on speech recordings, and the measures are derived from the speech process itself.

The measure of speech rate (number of syllables per minute) which had been found to be relatively constant under certain conditions, was broken down into two constituent measures by taking into account the frequency of inspirations during speech. The assumption was that by linking measures of respiratory behaviour underlying speech production to speech rate, the factor of speed in talking could at once be qualified in the direction of both tension and affect.

The technical problem of recording breathing without disturbing the subject's spontaneity was solved when the writer discovered a simple method of recording intake of breath from sound recordings. The two measures derived from speech-breathing activity are described in detail in a further paper (1955). They are the rate of respiration during speech and the output of speech (number of syllables) per expiration, the latter being that phase of the respiratory cycle which serves the production of speech.

Both measures, the respiration rate (*RR*) and the number of syllables per expiration (*ER*: expulsion rate of syllables), proved to be highly reliable for individuals, and at the same time sensitive to changes of stimulation, topic or mood.

Implicit in the fact that the speech rate is

the algebraic† product of breath rate (inspirations over duration of an utterance) and output per breath (syllables over inspirations in an utterance) are certain interesting aspects, namely, that for any particular rate of speech the number of syllables per expiration decreases as breath rate increases and vice versa. Each particular speech rate follows a hyperbola, the two ordinates being breath rate and number of syllables per breath. Plotted on double-logarithmic paper speech rate follows a straight line. It may be seen from any of the figures in this paper that even within the narrow confines of constant speed, utterances differ widely in respect of breathing activity (*RR*) and the economy of distributing it per syllable (*ER*). From this it was deduced that very different physiological and psychological processes would operate in the production of the same rate of speech.

To gauge these processes the writer proposed to chart any utterances in respect of the two parameters. If double-logarithmic paper is used and each utterance is plotted according to respiration rate (abscissa) and output of syllables per expiration (ordinate) the rate of speech will be the diagonal.

Hypotheses concerning the psychological significance of these measures were deduced from the psycho-physiology of respiration, from the analysis of the organic processes of

† If N_s = number of syllables, N_i = number of inspirations and t = duration of utterance (minutes), then $t = SR$ (speech rate), $N_i/t = RR$ (respiration rate), and $N_s/N_i = ER$ (number of syllables per expiration).

From the above it may be seen that

$$\frac{N_s}{t} = \frac{N_i}{t} \times \frac{N_s}{N_i} \text{ or } SR = RR \times ER.$$

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speech production, and from psychoanalytic observation and theory, and are discussed in the previous paper (1955) in detail.

They may be recapitulated here in short:

(i) The number of syllables uttered per outlet of breath tells us how far the energy supplied by the outflowing air current was under cortical control, i.e. how far it has been guided into the channels of speech activity, and how efficiently it has been utilized, i.e. into how many speech units it was transformed. Alternatively, we learn from it to what extent the air current returned free and unbridled as a spontaneous and unexercised carrier of emotion, and to what extent it was transformed into verbal activity, that is, to what extent the involuntary action of respiratory reflexes is directed by the cortical action of producing speech sounds.

(ii) The rate of respiration was assumed to signify strength of affect as far as it finds expression in speech. 'Easy and free-flowing affect would manifest itself in ample ventilation, excitement in hyperventilation, whereas repressed affect, attention, caution and fear would be revealed in inhibited breathing.'

To test these hypotheses various lines of verification were pursued. In this paper we are concerned with the validation of these two measures against the criterion of content or (in three cases) psychiatric assessment.

Utterances from eight interviews were charted separately for each interview in relation to *RR* and *ER* on double-logarithmic paper. In five cases utterances easily classifiable according to the topics discussed were grouped under the respective headings;* the exact classification depended on the content of each interview. Although the writer adopted mainly a passive role in order to encourage the subject to talk freely, a certain guidance was exercised so that samples of both affect-charged and intellectual speech might be obtained. In addition, three records are discussed in this paper which were not suitable for an analysis

* This was checked by an independent judge, and except for two utterances of mixed content in one of the records which were removed, there was complete agreement.

into topics; instead, two psychiatrists were asked to assess these interviews for the states of tension and affect which they seemed to betray.

RESULTS

Figs. 1-8 show the positions in the speech-breathing charts of the various groups of utterances for each subject. The individual subjects and interviews will be discussed separately. In general the following may be said:

The utterances which were grouped according to their manifest content alone also cluster more or less in groups on the chart. They thus share not only a topic but also the manner in which that topic is expressed in terms of speech-breathing activity. Content and respiratory expression as measured here can therefore be demonstrated to be in harmony.

The following discussion of the individual charts will show that the relationship between content and speech-breathing activity is in the predicted direction.

Subject 1, male, 22 years old

This highly gifted student of mathematics had been referred to hospital for difficulties in concentration on his work, and had received psychotherapy. He had been separated at an early age from his mother who was mentally ill, and according to his doctor the patient still tries to maintain the role of a little boy. The interview covered many topics, from which two were selected as being charged with affect, and one as involving a high degree of cerebration. In the first category the three utterances represented by ▲ refer to the patient discussing his wish to be a little boy ('every man is really a little boy at heart') and his anxiety about this. The seven utterances appearing on the chart as ● concern the story of the jealousy aroused in him by his girl friend's frivolousness and neglect. In the second category there were eleven utterances in which were discussed various theoretical points on information theory. The patient having been guided away from the previous highly emotional topics by

questions about his special interests in mathematics, mentioned information theory, and when the experimenter professed interest he responded to her request to explain certain aspects.

The chart (Fig. 1) shows the two categories fairly clearly separated in two diagonally opposite quadrants, with only a slight overlap. It may be significant that one of the two overlapping utterances on information theory, which was highly ventilated ($RR=13.6$, $ER=17.7$), was about the application of it in psychology. The patient also dwelt on the possibility of applying his mathematical gifts to psychology rather than to physics.

The analysis of the speech record also demonstrates that utterances of mainly affective or intellectual content differ in speech rate as well as in respiration and expulsion rate, the intellectual topics tending to be associated with a faster speech rate (mean $SR=209.5$) than the affective (mean $SR=157.4$). However, utterances which were spoken at about the same rate regardless of content are clearly discriminated by respiration rates as well as expulsion rates of their syllables.

Four more utterances are included in the chart following the interviewer's question concerning the patient's reaction to the Arts. As these are fairly short the conversation may be quoted in full:

Interviewer: Do you find any satisfaction in the Arts, any Art particularly?

Patient: Well I take a great interest in most of them but, ah, I wouldn't say I got much satisfaction out of it. ($RR=6.3$, $ER=27.0$.)

I.: Which is it?

P.: I mean for personal problems; I do enjoy music, or painting, or whatever it is but not in any way that's closely related to myself or my problems. ($RR=4.2$, $ER=42.0$.)

I.: Your enjoyment is intellectual again. You don't feel any of the emotional effects Art is supposed to have?

P.: Well no, uhm, quite the reverse really. Ah, as I say I'm very sensitive to cruelty and that sort of thing so I find much that, I dislike very much the sort of eh, shall we say films

which have a lot of horrible scenes in them and all that sort of thing; or novels, so I, I don't read that sort of thing, no matter how good I imagine the thing to be. ($RR=20.8$, $ER=12.2$.)

I.: But... you can avoid the products of the last ten years, or twenty years, which are more full of these sadistic themes.

P.: Perhaps so ah, but I have a strong feeling that it's sort of really a pretty unpleasant world. ($RR=13.5$, $ER=11.5$.)

Of these utterances the first two represented by Δ contain the impersonal aspect of the patient's reaction to the Arts, in the other two ($\blacksquare$ on our chart) the patient comes out with the intensely personal reaction to certain Art products, which leads us to one of the patient's central problems, namely, his obsession with cruelty. These utterances are in the expected position on the chart.

Subject 2, female, aged (?)

This patient presented an intriguing problem. She was referred to hospital for excessive eating and continuous loss of weight. Although no organic cause for this condition could be demonstrated apart from neurotic traits in childhood, there was no history of mental illness, but there were a number of peculiar features which suggested a psychological background to the complaint. The patient came from an extremely poor home and was never given a proper meal except at Christmas when she visited her aunt; on all other days she was allowed only bread and jam (with no butter). Nevertheless, she described her home as happy and seemed fond of both parents, particularly her mother. She was of good intelligence, had won a scholarship for teaching which she was not allowed to continue as the doctor said her heart was too weak; on leaving school she worked as a clerk. She was not interested in sex and she never wanted to marry: 'I don't know why but I never even think about it'; and her menopause set in at 26 when her widowed mother, who was looked after by the patient, became mentally sick and was frequently suicidal. It was at this time that

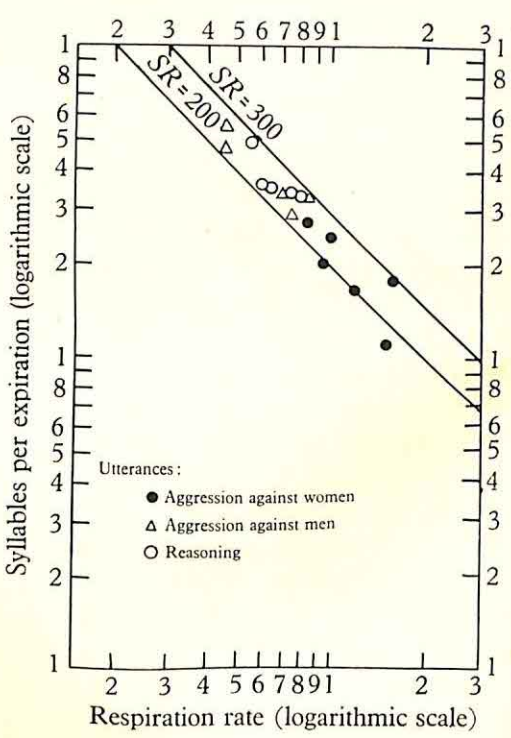
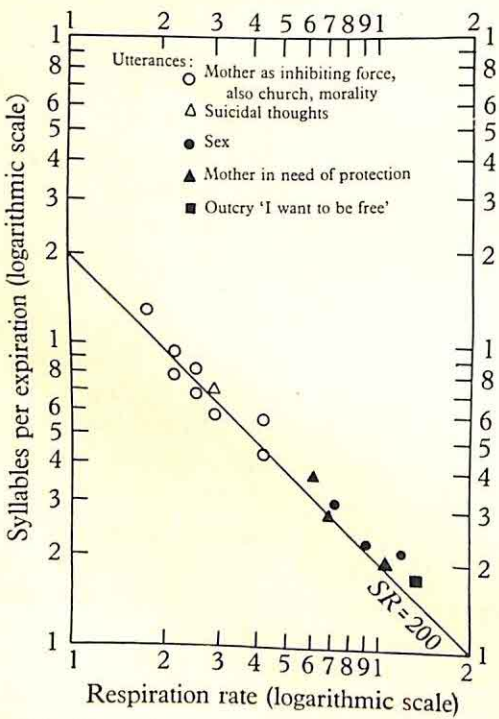
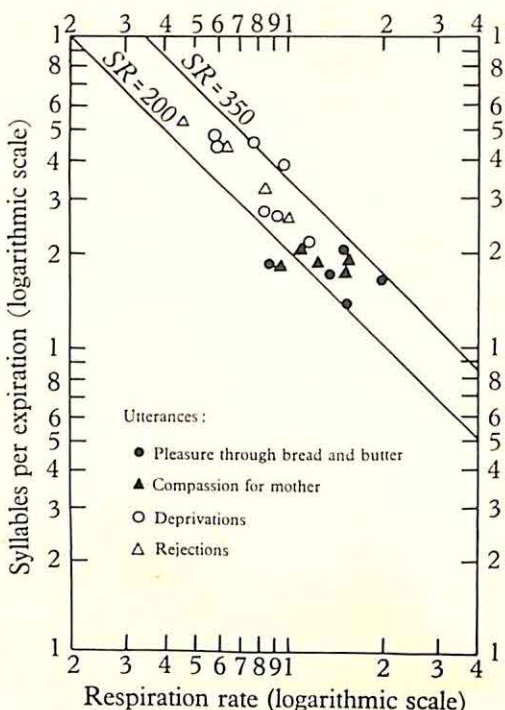
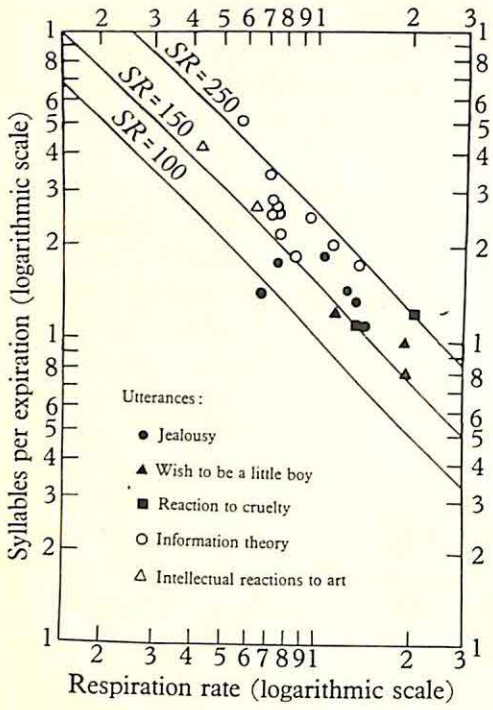


Fig. 3 (subject 3). The logarithmic scales indicate respiration rates of 1.0–20.0 and for syllables per expiration 10–1000.

Fig. 4 (subject 4). The logarithmic scales indicate respiration rates of 1.5–30.0 and for syllables per expiration 1–100.

the patient began to eat excessively. Her ravenous appetite is mainly for bread, and she has no use for meat. When in the hospital she would, for the first time in her life, eat butter with her bread, which seemed to gratify her to the point of near-ecstasy. (One of the physicians engaged on her case had suggested that her voracious appetite for bread was a hysterical phenomenon.)

When interviewing the patient the experimenter (who at that time knew nothing about the patient except the facts of her excessive eating and loss of weight) was so struck by the patient's shining eyes and the change in her facial expression when she talked about the abundant amount of bread and butter she could eat at the hospital, that she remarked on it to the doctor in charge.

Patient: Ooh, well I have uhm, bread uhm, bread, thin bread and the butter is as thick as the bread. It's *simply lovely*, and having had all that bread and margarine for so long I can't tell you how I enjoy that bread and butter. And I have butter on my potatoes, and when the others have eh, one egg I have two, and I have big helpings of everything. ($RR=15.6$, $ER=13.8$.)

Interviewer: Do you get enough meat?

P.: Yes. Ooh the meat I had today, ooh I had ever such a lot. Not that I'm a, such a lover of meat as all that because uhm, I wouldn't care if I never saw any for the rest of my life ($RR=4.6$, $ER=55.0$). But I do love that bread and butter... I love that, I wouldn't care if I lived on that and nothing else... It, perhaps it's the contrast (with home) you know eh, between that and the bread and margarine so much of it, I don't know, but it's *simply lovely*... And uhm, I mean it's eh, it's really fattening food, isn't it? It's pure animal fat, isn't it? ($RR=8.6$, $ER=18.7$) (Is there some anxiety creeping in here? The relatively low RR would not be inconsistent with this interpretation of the repeated 'isn't it').

Fig. 2 shows the utterances which referred to the abundance of bread and butter and the gratification the patient obtained from it to be highly ventilated both in RR and ER . In the

same quadrant, though not reaching such extremes of hyperventilation, are the utterances in which the patient speaks in terms of affectionate concern about her mother.

Her accounts of the deprivations she suffered (in respect of food, of education, and of her sister being deprived of a child) and the occasion on which she spoke of her rejection of meat, men, marriage and cake are in the hypoventilated quadrant of the chart. The speech rate is fairly constant except for three topics, bread and butter, and mother, in which speech was slower (low output of speech per breath), and deprivation, when the output of speech per breath, and thus the speech rate, was increased.

The disparity between these two clusters is again self-evident. The polarity in expression shown in speech-breathing activity (occupying opposing quadrants of the chart) plainly reflects a psychological polarity: experiences of deprivation or of gratification of oral desires (bread and butter); objects rejected or loved (mother) in the instinctual life of the patient. The one utterance in the last group whose RR was below the group average ($RR=9.4$, $ER=18.9$) was about the mother's death.

In this interview therefore, we find hyperventilation to be related to positive affect—and hypoventilation to utterances denoting restricted affect. Indeed, the output of breath seems more than figuratively to coincide with the 'going out' or withholding of affect.

Subject 3, male, aged 38

This patient was seen by a senior psychiatrist for the first time and the interview was recorded. A Roman Catholic, he is a bachelor, living with his old mother who has angina pectoris. The patient feels tied to her and holds this 'chain' responsible for his sexual frustration. He admits hostility and death-wishes towards her.

The interview fell, apart from odd utterances, into three major groups of topics: the largest O , containing eight utterances, was concerned with the theme of inhibition frustrating his wishes for marriage as well as blocking any non-marital sexual satisfaction. The inhibiting forces were, according to the

patient, mainly his mother ('mother is inhibition'), but also the tenets of the Roman Catholic Church as well as his own moral principles. He described his own feeling toward his mother as resentful and hostile, and complained of difficulties in controlling outbursts of verbal aggression against her. In three utterances ▲ however, the patient dwelt on the more positive features of his relationship to his mother, stressing obligation and pity as motives, but doing this as if he had to apologize for something, 'mother is after all mother'. Towards the end a slip of the tongue betrayed an aspect of the situation which psychoanalytic interpretation would describe as Oedipal attachment. The patient ended a diatribe against his mother, the obligation towards whom, he said, prevented his marriage, with the following remark: 'I am necessary for her, she is all. . . I am all she has.'

The utterances expressing, or at least betraying softer feelings towards his mother are, together with those dealing with his sexual urges and practices, spoken with increasing respiratory activity. The speech rate is remarkably constant. Only his masturbation practices are expressed not only with greatly increased ventilation in speech, but also, due to a very high breath rate, at an increased rate of speech. The ambivalence of his expressed feelings towards his mother finds clear reflexion in his respiratory behaviour during speech.

The three utterances signified by ● are 'spending money on women for fun', about his sexual reaction to women, and about his masturbation practices. One utterance in which the patient described his suicidal thoughts was also included. The latter is located in the same quadrant of the chart as the utterances dealing with the theme of the inhibiting and frustrating mother, church and morality.

The following analysis from a very long speech lasting five minutes and fifty seconds containing 1138 syllables, and dwelling on the patient's relationship to his mother and the effect of his association with her, will illustrate the above point. It was divided into four

passages, according to the patient's changes of attitude as described by himself.

The first two sections of the utterance dwell on the positive aspects of his earlier life with his mother, the second two on the negative side of which the patient had lately become aware.

The descriptive terms relating to his mother in the first section bear the character of inclusion and acceptance. Thus he says: 'After all my mother is my mother', 'I stayed with mother since childhood, adolescence, etc.' Only one fleeting remark sounds the negative theme. But even when he says: 'I never parted from her, no diversions from my concentration on my mother,' he adds: 'Who after all was my father's wife and then became his widow', as if to protect her against his own reproaches.

The patient is fond of using the word 'natural'. At this stage the 'sense of obligation is only natural'. 'It is not unnatural for such a thing (namely, never parting and having no diversions. . .) to happen, it's just a matter . . . of reflex action, it's the knowledge of responsibility. . . and a desire for a companion.' Here the respiration rate is 7.0 per minute, and the number of syllables per expiration 27.9, i.e. this part of the utterance is highly ventilated, at least relative for this patient whose respiratory activity is generally rather restrained (see Fig. 9).

The next stage of the utterance refers to the present. The patient excuses his attachment with: 'my mother is seventy years old, has angina pectoris of the heart'. The word 'naturally' is still used to justify his attitude to her: 'so naturally I cannot, if I wished, separate from her.' He then tries to give the doctor a picture of what his mother finally came to mean for him: 'this continual association, living with, living for my mother develops an image of the mother', 'so the mother becomes full part of one's conscious life, every hour, every day', 'in very much the same way as a wife becomes the conscious image of the husband'. The recognition of the husband-wife element in his relationship to his mother is uttered with a relatively high RR of 10.7, and an expulsion rate ER of 20.1. In other words,

the patient's confession of the incestuous fantasy attached to his association with his mother represents a peak of high ventilation of all his utterances referring to his mother (see Fig. 3).

From now on the patient's descriptions take on a different colour. This, he says (the husband-wife fantasy), 'is the cause of my illness'. He repeats the initial theme, but, so to speak, in a different mood: 'the cause of the trouble... is in the mother and son attachment with no diversion at all'. 'I am almost losing interest in outside life', 'isolating myself away from outside life'. Marriage ('I want to marry') 'is a question of inhibition', 'a check on all the *natural* impulses that make a man go into marriage in the most *natural* way'. We see that now the patient applies the 'natural' to the sphere of impulses, to his desire for marriage, whilst previously he used it in connexion with the 'sense of obligation' towards his mother. At this stage he is 'held back' by inhibition produced through 'one's conscious knowledge and obligation to the parent' (the word 'parent' is introduced in referring to mother, together with the change of mood).

In this section of the utterance there are only 3.3 respirations per minute, and the expulsion rate of syllables per breath is as high as 54.4 syllables per expiration. The theme of inhibition, isolation from and loss of interest in life is expressed with greatly reduced respiratory activity, while the speech output per breath rises.

The respiratory activity (*RR*) is equally reduced in the following section in which the patient enumerates the distressing aspects of his relationship with his mother, the hostility and aggression: 'she is nothing much more to me than a housekeeper', 'just another person', 'I am turning away from her completely', 'pushing her aside'. His use of the word 'natural' is again significant in as far as it is used to justify his urge for self-assertion: 'as if wanting to establish my own identity, *which is not unnatural*'. He describes his attitude towards his mother as one of intolerance: 'my attitude to my mother is not the attitude of a

son', 'something which leads to aggression' (he is careful to add: 'in speech not action'), but maintains: 'there is definite aggression, provoked by something she says or does to frustrate my own will, *which again is not unnatural*'. And at this point the patient points the accusing finger back towards his mother: 'if you are looking for an inhibition the inhibition *is* my mother'. (At this the patient extended his arm and at the words 'my mother' pointed his finger at an imaginary object on the table.) He went on to say: 'I have never grown out of that consciousness of my mother in my mind', 'subjecting my own will to hers, being influenced by her', and ended on the outcry: 'I want to be free, to do what I want, on my own, without having to answer to this parent you see'. The respiration rate at which all this is spoken is 3.3, with 56.9 syllables to the breath. The distribution of inspirations is interesting in as far as the seven times the patient inhales during this utterance, three intakes of breath occur in the last outcry. Thus the 326 syllables dealing with his hostility and aggression towards his mother, and the inhibiting influence of the latter are even more restricted in breath than the above figure suggests ($RR=2.3$, $ER=81.5$). The last fifty-five syllables expressing his desire for more freedom, on the other hand, are spoken with a release of breathing activity in fast succession. ('To be free, to do what I want to do'—breath—'when I want to do it, on my own'—breath—'without having to answer to this parent you see.') The expulsion rate (*ER*) for this part alone was 18.3 syllables per expiration, and he breathed at a rate of 12.9 per minute.

The patient's explosive expression of his desire for freedom releases the so far suppressed component of the conflict that seems to be responsible for the extreme restriction of his breathing activity. That the patient is in great conflict indeed is borne out by the content of the last two utterances in the interview which share with the above utterance the restriction in the breathing rate. After describing his suicidal thoughts ('young men... try to slit their throats with a razor blade or

hang themselves with a bit of rope, that is just self-destruction...') ($RR=3.0$, $ER=74.0$) the patient summarizes his case thus: '...my trouble is aggression towards my mother, not physically, you see, and as it were to destroy the picture of her in my mind and put her off completely and fight for my own liberties you see, my own self-expression. I am adjusting my mind to the mind of a person seventy years old, it is not easy to live with, to tolerate, it is not easy. To come home in the evening and adapt oneself to it until it is time to go to bed and all the time you think of what you could be doing as your own free agent, with money in your pocket. Enjoying yourself in a legitimate way you see, in amongst ordinary society. And it is that which causes the resentment. I need have nothing wrong with me in the sense of neurotic disorder, it may be just as you say a question of ah, change of outlook'. This utterance was spoken at a respiration rate of 2.2 with 97.0 syllables to the breath, and continued with even more restricted breathing and increased speed ($RR=1.8$, $ER=130.0$) when he discussed the prospects of leaving his mother if a job abroad was offered to him: 'I am sorry but I cannot leave my mother...if you say she has a sister 200 miles away—you can leave her, I would say I am sorry but I can't, I can't you see. You might ask me to jump out of the window, I would say I can't. That in itself is wrong, you see everyone is their own free agent...'

The extreme degree of restriction of breathing activity and the exceptional economy in the use of breath outflow for speech are fitting physiological corollaries for the patient's condition, which may be described as one of paralysing conflict, guilt and feelings of ambivalence.

The next case will show the verbal expression of aggression in a less grim context and in a more easy-going individual.

Subject 4, female, aged 26

This subject volunteered for the experiment. She had had some psychotherapeutic treatment which acquainted her with psychiatric

and psychoanalytic concepts. She was, on the surface, a well-adjusted individual. She was asked by the experimenter to talk about any experiences, topics, or fantasies charged with emotion. She reported that no other themes but aggressive ones occurred to her, and suggested on her own initiative that this might have something to do with her ambivalent relation with the experimenter, and she thought that in fact her compulsive choice of the topic of aggression against women was a transference phenomenon. After having expressed her aggressive fantasies against female acquaintances the subject discussed occasions on which she had reason to feel aggressive against males. However, according to the subject's own observation, these attempts at feeling aggressive were abortive: '...they (the aggressive feelings) turn into something sweeter.' There was a third major grouping of content, where the subject discussed certain theoretical points in her work.

The chart of speech-breathing (Fig. 4) shows again that utterances grouped according to content also fall into groups according to speech-breathing activity. The total range of RR as well as ER shows that this subject is considerably less restrained in breathing activity than the patient discussed before (RR varies between 4.8 to 18.0, as against 1.8 to 13.0), and less economic in the use of the air expired, i.e. she breathes not only more often, but allows more ventilation to enter into her speech (ER varies between 12.0 to 58.0, as against 23.0 to 130.0). She is at the same time far less rigid in varying her speech rate which is also faster ($SR=259.0$ as against 219.0) than that of the previous patient. The utterances containing her aggressive fantasies and outbursts against females (asserted emphatically and with much laughter) are not only highly ventilated but the speech rate is reduced. According to our hypothesis, in these utterances affect is being expressed freely, and the increased breathing rate remains unharnessed by speech to an unusual extent which is shown by the reduced speech rate ($SR=217.0$ as against 264.0 for aggression against men and

252.0 for reasoning). This is consistent with the subject's own observation that her feelings were stronger and more violent when talking about women. On the other hand, those utterances in which the patient spoke more on an intellectual plane show, on the average, the highest utilization of breathing activity for speech, and again the reasonableness of the content coincides with the effectiveness of speech-breathing economy.

Subject 5, male, aged 28

This subject had completed psychotherapeutic treatment. His problem had been difficulties in choosing a marriage partner; he was afraid of, and at the same time attracted to, dominant women. He had a strong need for protection by a maternal partner. He understood his therapeutic gain to consist of having learned to separate the dominant from the protective element in women.

Four separate clusters of topics could be isolated from the interview. The major topic was marriage, and this theme was discussed from two different angles. On the one hand the patient spoke about his anxieties of marrying a dominant woman, on the other he expressed what he hoped and how he expected to benefit from an association with a maternal and protective woman. Again the two groups of utterances are clearly differentiated. The anxieties are expressed with restricted breathing and also reduced speech rate, while the positive feelings about marriage are spoken with high ventilation.

If, as is postulated by the hypothesis, high ventilation of speech indicates free-flowing affect, the patient's affect flows out towards the protective woman and is withdrawn from the dominant woman. It is significant in this context that the utterances in which the subject spoke about his psychotherapy (which he regards as successful) and his woman therapist are in the same quadrant of the chart as those in which he dwelt on the protective woman. The utterances concerned with money and career, a more or less neutral and intellectual theme, take, as with the corresponding group

in the last case, the middle range of respiration with the most effective use of breathing for speech activity. There is, in this middle range, a considerable overlap, and three of the 'positive affect' utterances cluster together with three of the four 'neutral affect' utterances, although the separation between the former and the anxieties is quite sharp. Indeed the clustering on the chart suggests a re-grouping according to the value of *ER* which would be relatively constant within each of the three groups, although these vary in respect of *RR* and *SR*, in such a way that the groups are discriminated. We see that two of the utterances ● and one of the utterances ▲ are spoken with an *RR* of 7.5–8.0 and *ER* between 20.0 and 25.0, while the others of the same content groups are spoken with an *RR* between 10.0 and 20.0, and an *ER* between 16.0 and 21.0. Referring to the record we see that the two utterances spoken with a high *RR* and low *ER* succeed those with a relatively low *RR* and high *ER*. The first in the order of sequence (*RR*=7.9, *ER*=24.4) was preceded by the patient discussing his anxieties about breaking an engagement. Its content was still contaminated with these feelings dealing with the conflict between his fantasies about happy marriage and the reality of potential wives. He then returned to his anxieties concerning marriage. In the next utterance (● *RR*=8.0, *ER*=22.5) he announces that he now knows what kind of partner he desires, which for the first time in the interview he admits to be a motherly one, but confesses that he still lacks confidence. The following utterance (● *RR*=11.0, *ER*=16.5) is the first to be unequivocal in content; the patient asserts his need for encouragement and help from his future wife. After that the patient clarifies his conflict pointing out that it was this (encouragement and help) which he had hoped for from dominant women, not their hostility, and finishes by asserting emphatically that now he is able to separate the two 'seriously' (*RR*=18.5, *ER*=12.9 †). Thus the first two utterances in this group, with their residue of anxiety and a two-way orientation, on the cross-

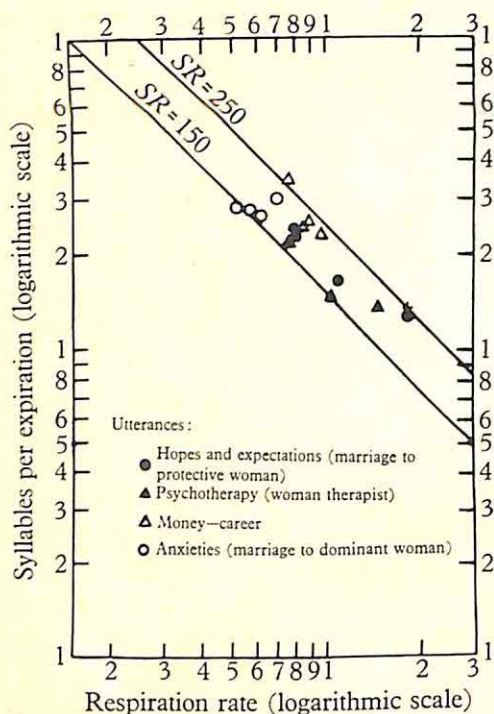


Fig. 5 (subject 5). The logarithmic scales indicate respiration rates of 1.5–30.0 and for syllables per expiration 1–100.

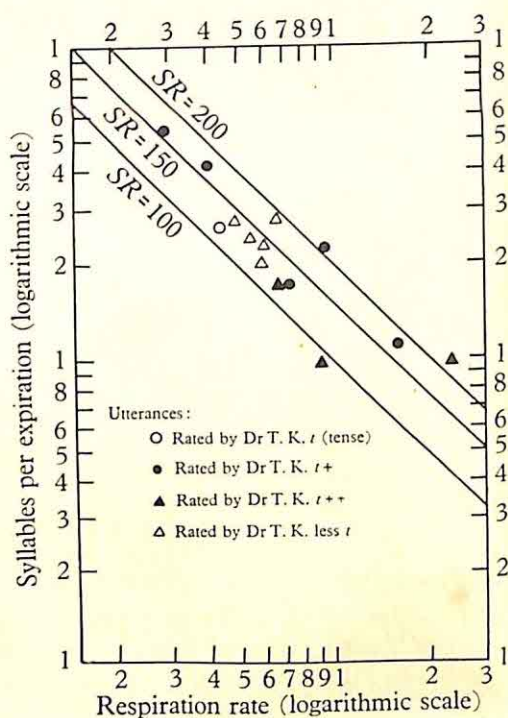


Fig. 6 (subject 6). The logarithmic scales indicate respiration rates of 1.5–30.0 and for syllables per expiration 1–100.

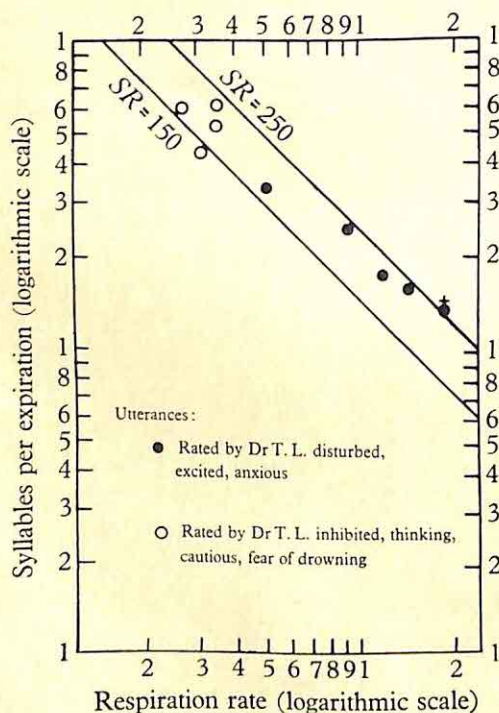


Fig. 7 (subject 7). The logarithmic scales indicate respiration rates of 1.5–30.0 and for syllables per expiration 1–100.

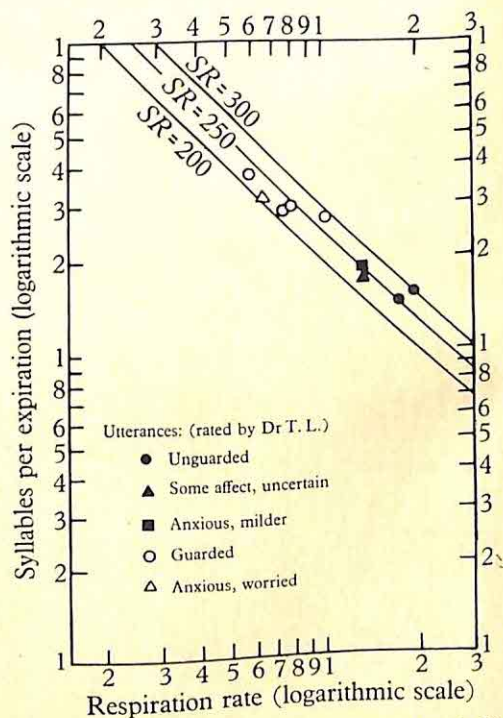


Fig. 8 (subject 8). The logarithmic scales indicate respiration rates of 1.2–24.0 and for syllables per expiration 1–100.

roads of the resolution of the conflict, have in this sense been misclassified. Their position between the totally anxious and totally resolved utterances concerning marriage is thus consistent with the hypothesis.

The following three interviews are those which did not give themselves to topic analysis in the same sense as the previous ones, since the various topics did not fall into groups which could be contrasted in the required way from their manifest content.

Subject 6, female, aged 26

University student. Diagnosis: depressive reaction in a compulsive personality. She is described by the doctor in charge as secretive, determined, self-conscious and ambitious. The difficulty of arranging the material into clearly defined groups may be connected with this secretive aspect of the patient's personality, and this is also supported by the doctor's note that 'piecing together the history of the present illness has been difficult because of the patient's reluctance to give information.... Questions which were aimed at procuring information... are skilfully parried, and there seems no doubt that the evasion was intentional.' Another aspect of the situation was the fact that the patient's manifestly objective (political) interests were charged with displaced affect, as the patient herself admitted in the course of the interview: '...having got that far (to the conviction of being completely unattractive) I saw politics not as a sort of genuine article at all, I saw it as a sort of defence for myself, and to me it made all those past years seem like one big lie. All the things I'd said, some of them rather high-sounding, which makes it even worse, and they just seem to be sheer hypocrisy.'

Dr T. K. was asked to indicate utterances which he considered particularly tense, or charged with affect. He did not use the category of affect at all but used his own classification of $t+$ = tense, $t++$ = very tense, and less tense. Two utterances he described verbally, saying that one was 'Non-Self, nothing in it', and characterizing the other as

'Crisis'. On the chart those utterances described as less tense are located in the middle range in respect of both ordinates.

The three utterances which were judged as betraying a particularly high degree of tension, including the 'Crisis', show a low output of speech per breath, i.e. poor economy in utilizing breath for speech, or a high degree of ventilation in speech. In the 'Crisis' utterance ($RR=9.2$, $ER=9.5$)—in which the patient comes to the conclusion that 'one can't help feeling'—more of the expired air is released per syllable than in any of the other utterances. The utterances characterized as $t+$ show an interesting distribution and raise the problem of exact meaning in the descriptive terms used by psychiatrists. Three $t+$ utterances were highly ventilated. Two of the utterances characterized as tense ($t+$) and one where the psychiatrist was doubtful and crossed out the $+$ sign leaving only t are, on the other hand, located at the other extreme of the diagonal, being spoken with a far more restricted breathing activity than the rest and a high output of speech per breath (low ventilation). The psychiatrist thus used the word 'tense' to describe what in terms of speech-breathing activity are two diametrically opposed and extreme forms of expression, the restricted and the outflowing. His rating and our measurements are in agreement, inasmuch as what impressed the psychiatrist as emotionally important statements are deviants from the mean in both dimensions of speech-breathing activity. If we consult the content as to further cues concerning these different groupings on our chart, where the doctor used only one category, it was found that the three 'restricted' utterances dealt either with the patient's sensation of strangulation, and horror with a feeling of tightness at examinations, or when she had to speak before an audience; speech with bated breath and poor ventilation thus expressed the emotion of fear; this is consistent with our hypothesis which refers to the close relation between fear and restricted breathing. None of the highly ventilated utterances expressed restrictive emotions such as the above; the

topics here ranged from a description of the nerve-racking way in which oral examinations are arranged, complaints about the examiner's cruelty, an account of experiences of public speaking when the patient had felt no fear and laughed about herself, an account of an occasion on which the patient brought herself to talk and ask a superior for a cigarette, the story of her unrequited love, and insight into the role politics played in her life, the realization that however she tried to be rational 'one can't help feeling'.

This is a mixed bag of topics according to content, and the only common element that might strike one is that the patient is more communicative 'bringing out' all sorts of material. Whatever may have impressed the psychiatrist with their significance, the speech-breathing measures not only confirmed his assessment, but add to the psychiatric impression because they help to qualify the mode of significance in terms of air supply (breath rate) and economy of its consumption in speech (*ER*), i.e. in terms of free-flowing as against restrictive emotion.

Two further interviews which did not lend themselves to topic analysis were assessed for the utterances of emotional import by a colleague, Dr T.L.

The first interview, a trial run, was given to him with rather vague instructions, asking him to indicate emotionally important utterances. He read the manuscript alone first, and made a tentative assessment, and then listened to the speech recording with the manuscript before him and made a second assessment. He withdrew one utterance from his list of important utterances after the hearing. The descriptive terms on the chart are his own, fitted to the individual utterances.

Subject 7, female, aged 26

This patient had a diagnosis of chronic tension state characterized by tachycardia. The terms chosen by the psychiatrist to describe the individual utterances fall into two groups according to the criteria of discrimina-

tion as posited by the hypothesis. The four utterances described as 'inhibited, thinking, cautious and fear of drowning' would, according to the latter, be expected to be spoken with restricted respiration and a high speech output per breath. The seven utterances described as 'disturbed, excited, or anxious' justify the expectation of an increased breathing activity and a higher degree of ventilation of speech (less syllables per breath). The array of utterances as plotted on Fig. 7 is in accordance with the above expectations.

One of the utterances which are classified as cautious on our chart ($RR=2.7$, $ER=59.5$) was characterized by Dr T. L. more specifically. He said of the patient: 'She is testing you whether she ought to talk to you.' This recalls one of the psychoanalytic observations (Fenichel, 1953) on the relation between breathing and anxiety, which supports our hypothesis: '... Analysts daily observe passing stoppages of breathing going along with an increase in castration anxiety... The impression is given that in inhibiting breathing at an intended new action, at a perception, at a change of attention, the ego tests out whether or not it needs to be afraid'. It should be noted that Dr T. L. gave his description purely on the basis of the impression he received from what the patient said. He was unaware of Fenichel's observation, or any version of it, and of course did not know the patient's speech-breathing behaviour in this utterance.

It is interesting that the utterance denoted by the symbol $\oplus$, i.e. the most highly ventilated in the interview, was dropped by the doctor from his list of important statements after hearing the speech recording. It was in this utterance that the patient mentioned, for the first time in the interview, her wish for a baby, a nodal point of her ambivalent feelings about childbirth; the reason given later by the doctor for doubting his first assessment of this utterance was that when hearing it on the speech recording he felt that the patient had herself well under control when responding to a question on this subject. From the chart we can see that the utterance in question was the

fastest in speech rate. The patient thus utilized some of her increased breath intake in speech, which may explain the doctor's misclassification. The objective measure gives a more precise description of the processes involved in the production of the utterance, and thus reveals its emotional significance.

factor alone may account for the difference in the degree of ventilation of the two utterances. At the same time it brings up the aspect of sequence and flux in interviews, and the difficulty of classifying some interviews according to topics of restricted and outgoing emotions.

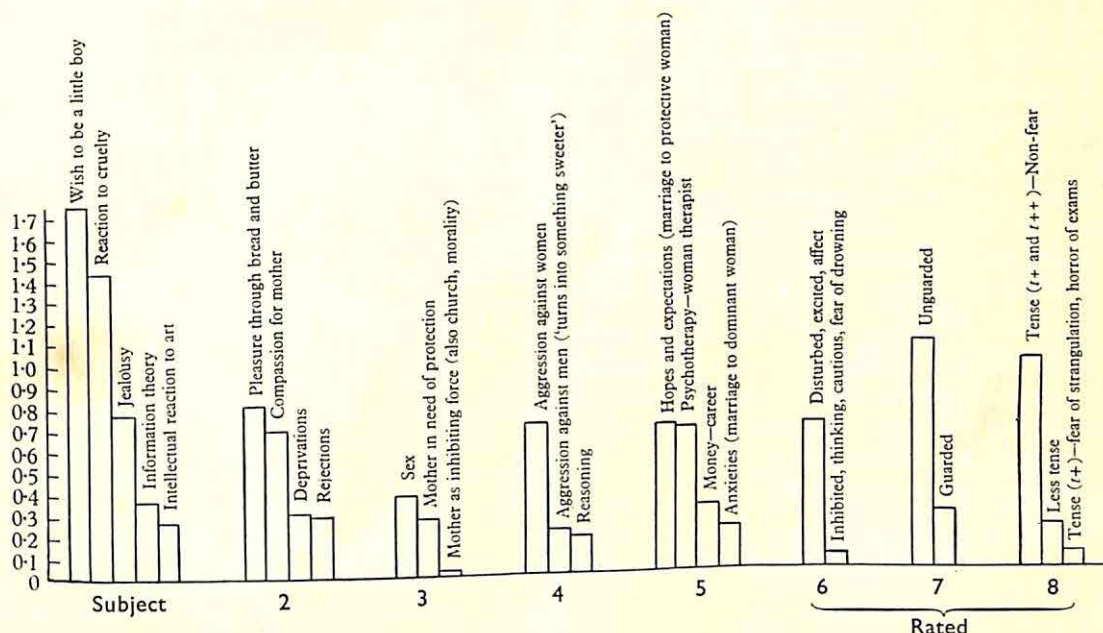


Fig. 9. Mean ventilation indices of topic groups of utterances of eight subjects.

Subject 8, male, aged 36

The assessment of the second interview was done on the basis of the manuscript only. The doctor again insisted on using his own terms. Fig. 8 shows the result, and although he found the dichotomy 'guarded' and 'unguarded' more fitting in this particular case it is clear that in spite of the variation in terminology the essence of the descriptions is in harmony with our interpretation of the speech-breathing measures belonging to the corresponding utterances. It is interesting to observe the position on the chart of the two utterances described as 'anxious'. The 'anxious worried' preceded the 'mildly anxious'; in the former the patient described his *intellectual* difficulties in solving a certain technical problem in which he was interested; in the second he proceeds to verbalize his *emotional* difficulties. This

Interviews which are entirely concerned with the patient's own story have, in a way, only one topic. Yet the patient's speech-breathing activity fluctuates considerably between highly ventilated speech and speech with restricted breath. The factor accounting for these fluctuations would be the patient's changing and evolving attitude to his material, i.e. the degree of retention or inhibition, alternating with and evolving into his readiness to express himself or to unload his feelings. This aspect of interviews has also been studied and will be reported elsewhere.

CONCLUSION

The above discussions of the individual charts may have already suggested to the reader that some further generalizations may be deducible

beyond the fact that content and respiratory expression are in harmony.

Fig. 9 summarizes our data in terms of a total index of ventilation using the information of respiration rate (RR) and output of speech per breath (ER) in such a way that utterances spoken with the highest RR and lowest ER are represented by the maximum, and those spoken with the lowest RR and highest ER figure as minimum quantities.* If we refer to this quantity as the ventilation index, Fig. 9 shows the mean ventilation indices for each topic group of the utterances shown on our charts.

It may be seen that while the individuals vary very widely in respect of the ranges covered by the ventilation in their speech, their high values belong to content implying free-flowing or outgoing affect (jealousy, food, sex, aggression, wishes, hopes and expectations), and the low indices of ventilation belong to topics of restricted emotionality, which implies tension states or intellectual speech. Thus we have at

* This figure is a ratio RR/ER which, expressed in terms of basic quantities N_i/t and N_s/N_i equals $\frac{N_i^2}{t \times N_s}$. The loss of information resulting from reducing the two-dimensional description of utterances to a one-dimensional index is compensated by the greater clarity gained in summarizing the data.

the lower end of the distribution fear, inhibition, deprivation, anxieties and reasoning.

The experiments in verification have therefore confirmed the claim that the measures of speech-breathing activity as defined above are valid and objective indicators of the degree of emotional intensity and of the extent to which emotions were restrained or given free expression in the exchanges during psychiatric interviews.

SUMMARY

Measures of speech-breathing activity from recorded interviews previously described by the writer, together with hypotheses set up as to their psychological significance, are summarized.

A verification of these hypotheses was undertaken by validating these measures either against content in terms of topics discussed or against psychiatrists' assessments of the emotional significance of utterances.

The hypotheses were confirmed in that in the interviews analysed it has been shown that utterances could be objectively measured both for their degree of emotional intensity, and also for the extent to which emotions were restrained or given free expression. These measures were found to correspond with the content as well as with the clinical judgements of competent psychiatrists, and also to add to the precision of their judgements.

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PERSONALITY AS A FACTOR IN THE PATHOGENESIS OF CANCER: A REVIEW OF THE LITERATURE*

By LAWRENCE L. LESHAN AND RICHARD E. WORTHINGTON†

The concept that personality factors may play a part in the pathogenesis of cancer is not a recent one. In the past three years it has again come to notice in a series of papers (see References). However, these publications have reported little of the earlier history. It is, therefore, the purpose of this paper to review briefly the background and present status of this idea. We shall not discuss here the extensive work on the psychological reactions of cancer patients to their disease (e.g. Shands, Miles & Cable, 1951), nor those studies that demonstrate the influence of the physical nervous system on tumour growth and development (e.g. *British Medical Journal* Editorial, 1925), but will confine ourselves to the reports suggesting the part played by personality in the formation and development of neoplasms.

The concept of 'humours', encompassing as it did both physical and psychological aspects, led many observers to study the area with which we are concerned. Galen is reported (see Mettler & Mettler, 1947) to have stated that cancer was much more frequent in 'melancholic' than in 'sanguine' women. In 1802, a group of leading physicians in England and Wales formed, 'The Society for the Prevention and Cure of Cancer'. They proposed a list of eleven questions, each of which described an area in which they felt the need for further research. One question was: 'Is there a predisposing temperament?' (see Hoffman, 1915). Lever in 1839, Tanchou in 1840 and others at about this time had answered the question positively, and stated that their experience led

them to believe that temperament was a factor in the development of tumours. Walshe (1846), in reviewing this literature, notes that there seemed to be general agreement that 'women of high colour and sanguinous temperament were more subject to mammary cancer than those of different constitution'.

Nunn (1822) appeared to have accepted the point of view that emotional factors can influence the growth of neoplasms. He describes a woman (case 44) with 'tumours of the right breast and nodules on the body'. His report continues: '18th January, 1813. A general shrinking of the tumours to a most remarkable degree. This coincides with a shock to her nervous system caused by the sudden death of her husband.' He goes on to say that shortly thereafter the tumour increased in size again and the patient died.

Writing in 1846, Walshe posed the question clearly and forcefully (p. 155):

Much has been written on the influence of mental misery, sudden reverses of fortune, and habitual gloominess of temper on the deposition of carcinomatous matter. If systematic writers can be credited, these constitute the most powerful cause of the disease; and Lobstein, assuming the fact as established, exercises his ingenuity in tracing the connexion of cause and effect: moral emotions produce defective innervation, this perversion of nutrition which in turn causes the formation of carcinoma. Whether this be the real catenation of circumstances or not, and although the alleged influence of mental disquietude has never been made a matter of demonstration, it would be vain to deny that facts of a very convincing character in respect to the agency of the mind in the production of this disease are frequently observed. I have myself met with cases in which the connexion appeared so clear that I decided questioning its reality would have seemed a struggle against reason.

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In his *Surgical Pathology* written in 1820, James Paget wrote in similar vein (see Paget, 1870, p. 800): 'The cases are so frequent in which deep anxiety, deferred hope and disappointment are quickly followed by the growth and increase of cancer, that we can hardly doubt that mental depression is a weighty addition to the other influence favouring the development of the cancerous constitution.'

Herbert Snow widely discussed the problem in his books written in 1883, 1890 and 1893. His general view was that emotion could cause a loss in vitality and weaken the individual's ability to resist cancer: 'Lowered vitality, in other words prostration of the nervous system, might fairly be termed a cause in all cases' (1883, p. 24). His view on this was so strong that he believed 'we are logically impelled to enquire if the great majority of cases may not own a neurotic origin?... We find that the number of instances in which malignant disease of the breast and uterus follows immediately antecedent emotion of a depressing character is too large to be set down to chance, or to that general liability to the buffets of ill fortune which the cancer patients, in their passage through life, share with most other people not so afflicted' (1893, p. 33).

To Snow goes the credit for the first statistical study in this area (1893, p. 34). He reported on 250 out- and in-patients of the Cancer Hospital (London?). In 156 of these patients, 'there had been immediately antecedent trouble, often in very poignant form as the loss of a near relative... 32 spoke of hard work and privation... 43 had histories permitting a suspicion of mechanical injury... in 19, no causation history was found.'

It is interesting to note that Snow came to much the same conclusions as did four more recent studies, those of Evans (1926), Foque (1931), Greene (1954) and LeShan & Worthington (1955), which will be further discussed here.

Ebstein (1894) discussed the problem of the traumatic origin of leukaemia. According to Hueper (1942), he lists 'psychic shock' as one of the possible traumatic factors.

In 1925, the *British Medical Journal* reviewed the earlier work of Cramer, Cheatele and others under the title, 'The nervous factor in the production of cancer'. Describing these papers on the relation of the integrity of the local nervous system and the growth of cancer, its editorial concluded that, 'Indirectly therefore, nervous influence must be regarded as of great importance in the production of cancer.'

Hoffman (1925, p. 16), in the same year, discusses the problem briefly. He felt that dietary factors played a large part in the pathogenesis of cancer, and uses this view as his starting point:

From the dietary disorders to nervous disorders is but a step. The two are frequently interrelated, and cause and effect are often hopelessly confused... This naturally brings me to the question of the interrelation of cancer and worry, or of the mental attitude of the patient toward the development, spread and curability of the disease... My own investigations of more recent years have led me to accept much of the latter view as an aspect of the cancer problem well deserving of more careful attention.

Elida Evans reported on 100 cases of cancer who had been evaluated through intensive psychotherapy (1926). Her viewpoint in therapy is essentially that of Jung. She found that her patients had lost a major cathexis before the tumour developed. An important emotional relationship had been broken off and there was no outlet for psychic energy. She inferred from this that detached energy, upon experiencing the stress of some 'intense renunciation' in adulthood, had turned inward and expressed itself through a primitive erotic outlet. From her viewpoint, 'the basic problem (of the cancer patient) is that of being driven back into himself'. Her book is one of the richest studies in this literature, and no brief précis can do it full credit.

Foque (1931) in a careful and important paper, stated that he believed that there were a multiplicity of secondary causes for cancer. These include X-rays, chemicals, viruses, etc. However, from his point of view, the cells first had to be in a receptive state before the can-

cerous process could start. On the basis of his clinical experience, he believed it is necessary to study 'the role of sad emotions as activating and secondary causes in the activation of certain human cancers'. These, he thought, through the instrumentality of the nervous system's effect on metabolism, act on the endocrine glands in such a way that the cell is put into a state where it is sensitive to and receptive to the carcinogen.

How many times have I heard—with variations due to different social statuses—the same litany: 'Since the death of my child, doctor, I am not the same. I do not recognize myself. I cannot find my equilibrium, and that certainly is the beginning of my illness because before, nothing like this had come to my attention' (p. 829).

Foque writes that he did not take this too seriously at first, but when this occurred repeatedly and when he noticed that this type of emotion seemed to accelerate the growth of the cancer, 'I was led to consider with less incredulity and then with scientific interest, the possible influence of these deep sad emotions and their depressing psychology.' He found, clearly apparent in many of his patients (one-third of those with cancer of the stomach; one-fifth of those with cancer of the breast) 'great crises, grave depressive afflictions, profound mourning, and all the sad emotions which have prolonged repercussions... You can see in the patients prolonged and silent sorrow without the release of sobs and tears.' These appear insurmountable to the patients and are related by them to the beginning of the tumour. Foque believes that the death of a child is one of the strongest of these 'grave, depressive afflictions' in its effectiveness as an activating agent for cancer, but that there are many others. He quotes Chomel as follows: 'Les chagrins prolongés paraissent avoir une grande influence dans le développement du cancer' (Prolonged sadnesses appear to have a marked effect on the development of cancer). Bouveret and others are quoted to the same effect.

Willy Meyer (1921) attempted to understand the relationships between social and emotional

stress on the one hand, and neoplastic disease on the other. He believed that cancer is related to a neurotic condition through the instrumentality of changes in the serum salts and blood chemistry.

Miller & Jones (1948), reporting on six cases of chronic myeloid leukaemia, state that: 'These findings therefore, have led us to believe that the frequent occurrence of emotional difficulties in patients with leukaemia may be more than a coincidental finding.' Each of the six cases showed marked emotional stress arising before the leukaemia was diagnosed, although they do not report any similar personality patterns among the different members of their group.

Recent experimental work in this area started with the provocative paper of Tarlau & Smalheiser (1951). Their approach was that 'the organism is a functioning whole', and that disorders occurring at different levels

... should create a corresponding deviation in the others. If a psychological disturbance is demonstrated in a group of patients with a specific illness, one must determine whether it is a secondary result of the illness, or whether the psychologic dysfunction existed previously and functioned as a contributing cause of the physical difficulty.

They studied twenty-two married females, eleven with cancer of the breast and eleven with cancer of the cervix, using interviews, Rorschachs, and drawings of the human figure:

Both groups had similar patterns of mother dominance which resulted in a rejection of the feminine role. Both groups had similarly negative attitudes towards sexuality that contributed to sexual maladjustment. The breast group was able to adjust superficially to these conditions; sexual conflict was not as overt in this group. These women had no premarital experience, they married at a late age and their marriages were stable. The stability of their marriages however, is not to be interpreted as meaning a happy marriage. Their marriages were overtly stable because of the lack of demands by their partners.

In the cervix patients... the sexual disturbance was much more overt. There was a higher incidence of premarital relations, a lower age at marriage,

and a very high incidence of overt marital discord.... From our data, we concluded that the breast cancers appeared in women who were functioning psychologically at a primitive oral level, while the cervix cancers appeared in patients who had a genital fixation.... The existence of these problems previous to the illness is revealed by the interview material. We felt that there is some evidence here that suggests that personality structure may play a role in the pathogenesis of cancer of primary or secondary sex organs in predisposed individuals (p. 121).

As the writers pointed out, this study must be regarded as preliminary only. The population is small, and all were terminal patients who may have had a long history of pain in the affected areas. Larger groups would have to be studied to confirm these findings.

Beatrix Cobb (1952) studied 100 cancer patients by means of projective tests, interviews and questionnaires. She was primarily interested in the differences between those who came promptly for treatment and those who delayed. Her excellent research, however, reports some factors common to all her cancer patients. They regard emotional involvements as dangerous and show an absence of cathectic attachments. Her subjects showed more and stronger negative reactions to their families than was found either in the general population they were drawn from or in an equated group of colitis patients. She goes on to say:

Results of the intensive investigation indicate a set of psychological attributes common to all cancer patients of this study. Basically, anticipatory fears and underlying dependency, combined with a trend towards negative reactivity under stress, are characteristic of the group studied. As a group, they had difficulty in making their way in a world of adequate social relationship... they often regard emotional relationships as dangerous.

Von Essen (1952) discusses some of the reasons for the lack of psychological studies of cancer. He doubts whether there is much value in exploring this field, and it may be dangerous as it may cause physicians to miss an X-ray diagnosis if they were looking for neurotic factors. He presents two case histories which

have forced him to consider this relationship despite these reasons. In one of these, a 42-year-old female, with intermittent hysterical aphonia since she was 12 years old, developed a carcinoma of the larynx at the age of 43. Von Essen suggests that the throat may have been defective and both disturbances located there for that reason, or there might be another explanation. Psychic factors often produce inflammation, and constant inflammation is known to be associated with cancer. Perhaps, suggests this writer, poor local circulation or constant inflammation caused by psychic disturbance may lower the resistance of certain areas of the body to cancer.

Byron Butler (1954) studied a group of patients with malignant tumours as part of a study of the value of hypnosis in the reduction of pain in cancer. He concludes in part: 'There may be a "cancer personality". From a very intensive study of these cases, either an inhibited individual with repressed anger, hatred and jealousy, or a "good" person consumed with self-pity may be prototypes of this personality.'

Stephenson & Grace (1954) interviewed 100 patients with cancer of the cervix and 100 patients with cancer of other sites. Sexual adjustment was found to be much poorer among the cervix cancer patients.

The failure to achieve orgasmic satisfaction in intercourse, the high incidence of divorce, desertion and unfaithful husbands, separation and sexual intercourse with others than the marital partner, are probably indicators of poor sexual adjustment. All of these occur more frequently in patients with cancer of the cervix than in those with cancer at other sites, and antedate the onset of the cancer by many years (p. 293).

Greene (1954) interviewed twenty consecutive male admissions who had a diagnosis of some form of lymphoma or leukaemia. In all twenty cases the development and recognition of the lymphoma or leukaemia occurred while the patient was having to adjust to a loss of support. This included loss of significant object relationships. In seventeen patients, this loss

involved varying degrees of separation from a parent-figure, usually mother or mother-figure.

A study of forty patients with cancer of the breast was reported by Bacon, Rennecker & Cutler (1952). The 'technique consisted in reaching dynamic evaluations only from anamnestic material and the personal observations of the interviewer'. They found six major behavioural characteristics of the forty patients they evaluated in this way. These are: (1) a masochistic character structure; (2) inhibited sexuality; (3) inhibited motherhood; (4) inability to discharge or deal appropriately with anger; (5) an unresolved, hostile conflict with the mother, handled through denial and unrealistic sacrifice; (6) delay in securing treatment.

The predominant characterological picture which centered around the unresolved conflict with the mother, appeared to be the most essential dynamic denominator in *this* group of patients. All of the behavior patterns mentioned above seemed to stem from a need to repress this hostility, to handle it with a reaction-formation of pleasantness, self-sacrificing behavior, and a severe inhibition of competition with the mother in the area of sexuality and pregnancy (p. 459).

The writers warn against the formation of a picture of 'the woman with cancer of the breast' as a composite of statistical trends. They feel further understanding will come only so long as attention is kept focused 'on the individual with her special history and capacities, reacting to a particular set of describable forces at a particular moment in time'.

The work of Cutler, West, Ellis and Blumberg is reported in a symposium edited by Gengerelli & Kirkner (1954). Their major interest is the difference between patients with rapidly growing and those with slow-growing cancers. They report being led into this field through discussions of the diagnosis with the patients. They felt that they could predict how well the patients would do from their interviews, and found that their predictions correlated highly with the course of the disease. To objectify and quantify these clinical impressions, a testing programme embodying the

Minnesota Multiphasic Personality Inventory (MMPI), the Wechsler-Bellevue and the Rorschach was started. There was no difference in I.Q. found between their groups. MMPI profiles from the first eighteen cases were used as criteria for predictions of growth rate, and these predictions were applied to the next thirty-two cases. Predictions were correct in twenty-five cases and wrong in seven cases. 'The probability that such a performance as this, or better, could have been the result of an accident is less than five in one thousand' (p. 48). The interpretations of the MMPI's, borne out by Rorschach studies on twenty of the fifty patients, indicated that the fast-growing cases may be described as having more defensiveness, a higher anxiety level, and less ability to reduce tension through motor discharge than the slow group (p. 58).

A discussion of these findings by Bruno Klopfer states that the slow-growing group seems to include both very well-adjusted individuals (with little intrapsychic stress) on the one hand, and 'decompensated psychotics with decompensated ego defenses and psychopathic individuals who never saw any need in wasting life energy by investing it in ego defenses' on the other. The fast-growing group includes individuals with a good deal of intrapsychic stress. 'The more neurotic the defenses, the more Maginot Line psychology we find in an individual, the surer one can be that if he has a cancer, it will grow fast' (p. 65).

The symposium also presents comparative case summaries of individuals with fast- and slow-growing cancers, and discussions of various aspects of the problem by Ziskind, Clemens, Samuels and others.

This is an ambitious study of the problem and will need careful evaluation. Much of the discussion is interesting in itself, and provides many points for fruitful speculation and study. One basic aspect of this work is, in the opinion of the present reviewers, open to some question. This is the basis of the division of their groups into 'fast' and 'slow' growth-rate groups. Although the writers have obviously attempted to be as careful as possible on this point, it is a

complex and confusing problem, and the criteria they present for selection are by no means clear. Ziskind (p. 84) raises this point in his discussion, and Blumberg describes at some length the problem of separating the cases in the two categories. Nevertheless, the discussion of this vital and basic area gives no clear understanding of how the separation was made.

LeShan & Worthington (1955) studied the personalities of 150 patients with malignant tumours by means of a projective device, the Personal History. They reported that three factors statistically differentiated the protocols of their malignancy patients from patients with other or no-known disease. The most frequently found difference consisted of a pattern of events. In this, the patient had in the past made a major cathexis to some other individual or group of individuals. This cathexis, had, within a 10-year period prior to the diagnosis of the malignancy, been lost, and the patient had been unable to find a satisfactory substitute relationship. Typical examples of this occurred in some individuals connected with widowhood or job retirement. The malignancy patients were also less able to express hostility than the controls, and showed more tension over the death of a parent, often an event which had occurred far in the past.

As one examines these papers, one is struck by the fact that there are consistent factors reported in studies which gathered their material in different ways. There appear to be four separate threads which run through the entire literature. These are: (1) the patient's loss of an important relationship prior to the development of the tumour; (2) the cancer patient's inability successfully to express hostile feelings and emotions; (3) the cancer patient's unresolved tension concerning a parental figure; (4) sexual disturbance.

The loss of an important relationship before the disease appeared was reported by Snow (1893) as one of the factors he found frequently in his cancer patients. He used interviews as his method. Evans (1926) using Jungian psychoanalytic technique, Foque (1931) who

used interviews, Greene (1954) using interviews, and LeShan & Worthington (1955) using the Personal History Test, all described this as the major finding in their cancer groups.

The inability of the cancer patient to express hostile feelings successfully was reported by Bacon *et al.* (1952), who used an interview technique, Butler (1954) gathering his data from psychiatric interviews, Cobb (1952), who used interviews, questionnaires and projective tests, and LeShan & Worthington (1955). The symposium edited by Generelli & Kirkner (1954), using data chiefly from MMPI's and Rorschachs, also contains various statements pointing towards the existence of this factor in a large number of their patients.

Strong unresolved tensions concerning a parental figure were reported by Bacon *et al.* (1952); Evans (1926); Tarlau & Smalheiser (1951), who used Rorschachs, drawings of the human figure and interviews; and LeShan & Worthington (1955). Each report phrases this difficulty differently, but it appears very likely that they are describing the same tension in different ways.

Disturbance in the sexual area was reported by Tarlau & Smalheiser (1951), Stephenson & Grace (1954), and Bacon *et al.* (1952).

As further research is published, it appears probable that a consistent picture of the personality structure of the cancer patient will emerge. We still, unfortunately, view these patients through the confusion of semantic and methodological differences which seem to characterize the first stages of research on any new psychosomatic syndrome.

The problem of the intervening variables between personality factors and neo-plastic disease is far from clear. Peller (1940), in his excellent analysis of comparative cancer mortality rates, states: 'It is probable that the difference in rates for widows and other women, as far as cancer of the colon is concerned, are due neither to the parturient history and standard of life nor to diagnostic errors. They should be traced rather to the reactions of the body incident to the loss of the *pater familias*. This circumstance in the carcino-

relevant mechanism remains to be clarified.' We have not yet made any major progress in this clarification.

The concept of Lobstein (see Walshe, 1846) is mentioned earlier in this paper, as are those of Willy Meyer (1921) and von Essen (1952). Meerloo (1954) has pointed out that it is possible that physical and psychological manifestations may be coincidental, stemming from different causes. Other possibilities he lists are that unknown factors may provoke both physical and emotional reactions; that a common central brain or endocrine factor may cause both emotional disturbance and cancer; and that stress may be a causative factor in the development of cancer through the intermediary of the stress hormones.

Revici (see LeShan & Worthington, 1955), stressing host-resistance to cancer, has described a concept of successive environments in which the cancer process must take place. These include the cell cytoplasm, the interstitial fluid, and the general body chemistry. Disturbance on one level may influence the balance on others. Psychological disturbances may, through the hormonal systems, so disturb the body chemistry that cancer *in situ* may become a malignant growth.

This area—what processes relate the personality factors and the tumour—is one in which we can only speculate at present. The work of Selye (1950) and his followers has been pointed out as fruitful for the necessary experimental work we will have to have before we can reach any conclusions. Andervont's study (1944), showing the influence of isolation and group living on spontaneous cancer in mice, may be able to help direct us toward techniques whereby some of these problems can be studied with animals, but there seems to be little question that the bulk of this work will have to be done with human subjects. The psychoanalysts have been advocating study in this field for a long time. Groddeck (1934), Jelliffe (1939) and others have pointed out that intensive, psychoanalytically oriented study of the cancer patient will be well worth while. It is only in the past few years, if we except the work of Evans (1926), that this work has started, and research now under way should provide us with important answers in the near future. These, integrated with further understanding of the physiochemistry of cancer, may enable us to arrive at a truly psychosomatic understanding of this disease.

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THE APPLICATION OF THE THERAPEUTIC COMMUNITY PRINCIPLE TO A STATE MENTAL HEALTH PROGRAMME

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In recent years there has been an increasing interest shown by psychiatrists in the application of social science concepts in the field of psychiatry. Many psychiatric hospitals, when viewed objectively by a social scientist, would appear to be quite unsuited to the task which they have to perform. Individual treatment, no matter how competently carried out, is liable to be relatively ineffective unless the social environment in which the patient lives during his stay in hospital is organized in such a way that it becomes an integral part of the total treatment programme. Research on these lines has been going on at a social rehabilitation unit at Belmont Hospital, near London, England, for the past seven years (Jones, 1952). Dr Robert A. Matthews, Professor of Psychiatry at Louisiana State University School of Medicine, visited Belmont Hospital in the summer of 1953 and felt that the principles of the therapeutic community might be applied in some psychiatric centres in Louisiana. This resulted in a visit by Dr Maxwell Jones to Louisiana for the month of February 1954. During this time the psychiatric department of Charity Hospital in New Orleans was used as a base, and visits were made to the three state mental hospitals and to the V.A. hospitals at Gulfport, Mississippi and New Orleans. The same general procedure was adopted at each of the hospitals visited, although the length of the visits varied somewhat. The major time was spent in the psychiatric department at Charity Hospital, and two days were spent at each of the three state hospitals and at Gulfport V.A. Hospital.

We would like to describe in some detail the experience at the South-east Louisiana State Hospital where the Medical Superintendent, Dr G. W. Davies, co-operated to the fullest extent. The hospital is a new building at present housing approximately 400 patients but planned ultimately to hold 1500 patients. The staff here were an enthusiastic and relatively young group who were interested in the dynamic aspects of psychiatry and were carrying on several therapeutic groups with schizophrenic patients. The first day was spent in observing the existing therapeutic groups and in discussion with the doctors and nurses. The latter expressed great interest in a more active treatment role and felt that much of their time was spent in administrative routine filling up charts, etc. They complained that relatively little time was available to get into close communication with the patients. They were interested in the concept of group treatment but had been left out of the therapeutic groups and seemed to feel rather rejected. The second day was spent in further discussion with various staff groups and in another therapeutic group of schizophrenic patients. It was decided to hold community meetings on two closed wards with the patients and total personnel associated with treatment on each of these wards. Dr Davies attended the meeting on the male semi-convalescent ward and Dr Maxwell Jones went to the female semi-convalescent closed ward. At the latter meeting there were approximately sixty patients mostly schizophrenic and with some chronic alcoholics. Many of the nurses who were off duty had come back to the hospital, and in addition to the doctors on this service there were present two psychiatric social workers, two psychologists and the priest. The meeting had organized itself in the familiar formation with the chairs all facing the

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speaker's chair. The staff and patients had arranged themselves in separate groups. There was an air of expectancy, the staff all knowing the purpose of the meeting, but the patients, who had been informed by the nursing staff, seemed to be less clear about the meeting; some of the patients were too ill to participate and wandered about in the background. The first step taken was to ask the community to form a rough circle several rows deep and to talk about problems that they cared to raise. Almost immediately several patients expressed the belief that they were well enough to go home, and one patient stated that the doctor ought to arrange for her husband to come and discuss this matter with him. This led to some discussion of the lack of free communication between the outside world and the patients and their doctors. It was felt there should be more meetings between the relatives, patients and doctors, and that it might even be a good thing if such discussions were held collectively with other patients and relatives present.

At this point the visiting doctor described a type of psychodrama in current use at Belmont Hospital which involved the sharing of most intimate data from the individual's past history with the total community in order that they should better understand the patient's problem and be able to play a more therapeutic role in relation to that patient. In the discussion which followed various diverse views were expressed; some patients, presumably the more paranoid ones, showing considerable resistance to the idea that their private world should be made public, whereas other patients felt that it would be a great help to them in adopting an appropriate attitude to particular patients. Another split then appeared to emerge in the meeting. The behaviour of alcoholic patients was discussed and disapproval expressed because too much drinking had occurred in certain instances when patients had been on parole and that on occasions they had brought alcohol back to the hospital. One felt that there was considerable hostility between the two groups of patients involved—the alcoholic patients tending to imply that the psychotic

patients were mad and the psychotic patients tending to imply that the alcoholic patients were bad! Constant reference was made throughout the meeting to the fact that the nurses were too busy to participate freely in the ward life, and there were also complaints from some patients that they never saw their doctors. The patients seemed to be unaware of the role of the psychiatric social worker and seemed to obtain considerable relief from the explanation given by the social workers themselves. This link with the outside world was welcomed by the patients, and it was felt that the psychiatric social workers should spend some time daily in the wards where the patients could contact them quite informally. In the meeting there was at times considerable feeling which was not confined to the patients—that staff tended to be silent and were at times on the defensive. They appeared to find it more difficult to participate freely in the meeting than did the patients. At times the meeting seemed to get out of hand with everyone talking at once—this was easily controlled, however, by the visiting doctor who acted as a sort of chairman. The meeting lasted a little over an hour and was terminated by a general agreement that there was much to be gained by further meetings of this kind where there could be an exchange of views and an attempt to work through some of the current tensions.

The staff now joined the remainder of the staff who had attended the meeting taken by Dr Davies in the male ward. More than twenty staff members were involved and there was a feeling of unmistakable excitement. The two meetings were discussed and some of the points raised by the patients given further consideration. It soon became clear, however, that the staff were deeply implicated and various points of tension in the staff were highlighted. For instance, in the male ward meeting there had been a complaint made about one of the hospital personnel. Several of the staff implied that something should be done to remove this individual from his present post. This suggestion was countered by one of the doctors who pointed out that such a move was

side-stepping the real problem and the individual in question should be invited to attend the community meeting with the patients and discuss the difficulties which had arisen between the patients and staff and himself. One of the doctors complained that the nurses often forgot to send patients to her group or that the patients came late. She implied that the nurses were not interested in her group, but the nurses denied this, and said that they felt rejected because they had not been invited to participate in group treatment. One of the doctors then interpreted this forgetfulness as being an expression of hostility, conscious or unconscious, which the nurses felt to the doctors in this situation. It became clear that much could be done to improve communications between the staff. The role of the hospital chaplain then came up for discussion—it was felt that he needed more help and guidance from the doctors in planning his service to meet the needs of schizophrenic patients. It was felt too that the nurses could do a great deal here in collaborating with both of the hospital chaplains. This led to a further discussion on the nurses' role in relation to the patients. The nurses spoke very frankly about their problems and admitted that they had at times great difficulty in avoiding punitive attitudes towards the patients. They welcomed the possibility of frequent community meetings with the patients as a method of dealing with their own unexpressed feelings and realized that this amounted to treatment of their neurotic difficulties. This was particularly true if the community meetings with patients were followed by staff meetings so that further opportunity was afforded for the working through of staff tensions. The nursing supervisor expressed some concern about the anxiety which community meetings might create in patients whom she felt would often be too ill to assume responsibility towards other patients. On the whole, however, the staff seemed to feel that patients would benefit by being given some guidance in how to handle the problems of their own disturbed members. The supervisor also expressed the opinion

that nursing staff and doctors needed more coaching in group dynamics before embarking on such an ambitious scheme. It was agreed that while this was theoretically desirable community methods of treatment were so new that it was still necessary for interested groups to learn by their own experience and develop their own techniques.

It was most impressive to see how this hospital group was prepared to develop the concept of a therapeutic community in their own way. They had the great advantage of being a new hospital without any as yet deeply established traditions and clearly defined staff roles. They were already actively interested in group treatment and had as leader a doctor who was sufficiently secure to forego some of his authority and refer back at least some of the community problems to the people concerned. There seemed to be unanimous agreement on the need for free communication at all levels if the patients' difficulties were to be fully understood. The nursing staff, in particular, seemed to want freer communication with both patients and medical staff. The trained nurses felt that their time was, to a large extent, spent on routine administrative work and keeping records. They felt that they needed more time to spend with the patients, and that their role should be modified in the direction of greater informal contact with patients so that they could become more accepted in the patient culture. They were also impressed by the relief which they had got from the opportunity to verbalize some of their anxieties in a staff group. They felt that in a psychiatric community it was necessary to bear in mind the treatment needs of the staff as well as those of the patients. The willingness of the medical staff to adopt community methods of treatment showed that they were prepared to modify their own roles in accordance with the lead given them by Dr Davies. They were fully aware of the problems that this freer communications might uncover but felt that in time they could successfully work through them. The impression gained was that there was a psychiatric team who were fully prepared

to scrutinize their social organization with a view to freer communication between all levels of staff and patients and modify their roles accordingly. In addition, they were prepared to consider the possibility of using at least some of the patients to help in treatment; this would be done in close collaboration with the staff who would guide patients in their treatment role in relation to other patients. Finally, the concept of communication was wide enough to include the outside family. This might lead to greater participation of family members in the treatment of the patients in groups within the hospital and allow relatives to receive treatment when required without being designated patients.

Much the same approach was adopted in the case of the University Psychiatric Department at Charity Hospital. In this case, however, the meetings with various staff groups were carried out intermittently throughout the whole month. The situation was much more complicated in that there were two Universities involved in the running of the one Department. Dr Jones was mainly with Louisiana State University, but the psychiatric staff of Tulane University participated most willingly on occasion. The first meeting was a two-hour discussion with the staff nurses and nursing supervisor of the Department. They were most anxious for improved communications, and felt that in addition to the familiar problem of temporary staff, such as students who stayed for only six weeks in the psychiatric unit, they also had considerable difficulties over control being shared by two Universities. This resulted in a feeling of insecurity and uncertainty as to their role because of the dual control and lack of a unified policy. Here again there was a strong feeling that freer communications would lead to more efficient social work and a clarification of their roles. At a two-hour meeting with the medical staff and psychologists one of the doctors opened by challenging the need for any change. This was followed by complaints of the residents that they were overwhelmed by clinic work, and this led to a discussion of what appeared to be a rather privi-

leged hierarchy. The residents seemed to accept that it was inevitable in their training that they should take severe punishment for the first few years and looked forward to the time when they themselves would be in a more privileged position. However, they did say that in various parts of the country as a result of action by the residents conditions were being improved and a fairer distribution of work was being brought about. The residents were careful to direct their criticism towards the hospital authorities, and when this was interpreted to them as being safer than attacking their psychiatric bosses there was much laughter and agreement. The professor then accepted his own failure as a leader in not approaching the hospital authorities to ease the burden of the residents. This admission by the leader seemed to reassure the juniors who then proceeded to talk freely and hinted at a split among themselves about doing unpopular duties in the receiving department. One of the senior doctors then pointed out how the staff were split into several subgroups, each with its own separate communication system. This was generally agreed and the professor added another subgroup which consisted of himself and his two senior colleagues. He felt that he was not prepared to extend his confidence to the whole group. It became clear that the four residents had an impossible load of work and that they felt defeated. Moreover, they felt rejected and angry because they were not brought into the inner councils and they tended to express their hostility in the work and not infrequently on the patients. The residents then attacked the psychiatric social workers who apparently had very little communication with the doctors or with nurses. The visiting doctor then suggested that if the senior doctors had even one or two patients of their own whom they treated on the wards they would come to understand better some of the reasons for tension on the wards. Such a move might also improve the morale of the residents and patients. It was then remarked how much more tension was being expressed at this staff meeting than at previous formal staff meetings where there was no outsider present and where

no attempt was made to analyse their group problems. The professor expressed the opinion that he had a new insight into the possibilities of communication and the treatment of staff tensions in a group. It was forthwith agreed that there would be two staff discussion groups each week. It was interesting that the doctor who had opened the meeting by questioning the need for change was the same doctor who suggested that there should be two weekly staff meetings in the future.

On the afternoon of the same day a meeting of the available staff from both Universities was held together with the nursing staff, and it was suggested by one of the residents that female patients from the open ward should also be asked to attend. This was done and resulted in approximately twenty patients and thirty staff being present. The patients discussed their fear of being sent to closed wards and criticized severely the selection of patients to be sent to such wards. They also complained that the aides were unnecessarily rough. They wanted more frequent contact with their doctors, but at first rejected the idea proposed by the visiting doctor that this difficulty might in part be overcome by discussing their problems with other patients and staff present. It seemed that they slowly grasped the fact that their views were being taken seriously, and they then expressed the fear that reprisals might result from talking too much. They seemed pleased to think that they could actually teach the staff something, and it became clear in the discussion that staff sometimes made mistakes and needed guidance; for instance, the patients were often better able to assess the tensions in the ward than were the nurses or doctors. In relation to this their own opinion might, with advantage, be sought by the staff in deciding transfer of a patient to the closed ward, etc. At the end of this meeting, which lasted an hour, the staff continued to discuss their problems for a further hour.

There was a general feeling of satisfaction with the meeting, and everyone felt the need for better communication at a staff level between the two Universities. It was felt that much

could be done to build up a therapeutic community modified to meet their own particular needs. The two University groups felt, however, that such development would be greatly aided if their departments could be divided into two autonomous psychiatric units.

The next day a further meeting was held with the available staffs of the two Universities, nurses, and aides. The female patients from the open ward were now joined by some patients from the male open ward. After an uneasy start one of the male patients began talking about the unnecessary brutality shown towards disturbed patients having E.C.T. Patients seemed to feel that 60% of the nursing aides were positively cruel. At this point the visiting doctor acted out a scene with the psychologist playing the part of the unco-operative patient. It was clear how difficult it was to fulfil the instructions to take a patient to treatment in view of his disturbed state. The male patient who had complained was then asked to play the role of a second nursing aide and this still necessitated the use of some force in handling the 'patient'. In the discussion which followed it became clear that the nursing aides felt very isolated, and as one aide put it the doctor would never think of talking to them. It also appeared that aides were hard to get and were always leaving because the pay was so poor. They often had to take extra work in order to live in reasonable comfort. Moreover, their training was far from satisfactory, although an attempt was being made to improve this. It was agreed that the patients and staff could do a great deal more than they were doing to help the aides and to clarify their roles. In a sense the aides themselves needed treatment. It then became clear that the new student nurses who spent only three months on the ward felt that they too were never absorbed into the ward life and were not even introduced to the other staff members on arrival. The psychiatric social workers then described how they felt themselves to be another displaced group who had no adequate communication with most other members of the staff. The patients' points did not seem to be taken up freely by the staff

who, compared with the patients, showed an unwillingness to participate. At the staff meeting following the community meeting it was agreed that the nursing aides were probably being used as scapegoats, and much of the hostility which was felt towards the doctors was being displaced on to them. The professor compared the role of the nursing aides with the social therapists at Belmont Hospital; at the latter the role had a high prestige and status and their communication was equally good with patients and medical staff. The possibility of using graduate students from psychology, sociology, etc., to create a role like that of social therapist was then discussed. It was frankly admitted that the staff had failed to deal with the many challenging points raised by the patients, and that the staff were tending to revert to the old pattern of leaving problems to be dealt with by the authorities. The group still had no concept of its own authority. The visiting doctor then pointed out that no one had raised the question of what steps should be taken to plan future community meetings with the patients. Were they again reverting to pattern and leaving it for the authorities to decide?—this in fact was what happened!

Traditions die hard, but in the field of psychiatry there are encouraging signs of an increasing interest in the possibility of the application of new social values and practices to aid treatment. In the past relatively little attention has been paid to the social organization of psychiatric hospitals and to the various staff roles and particularly to the role of the patient. We feel that the application of the principles inherent in concept of a therapeutic community can do much to improve the effectiveness of the well-established forms of individual treatment. In particular, the patients themselves can help enormously in treatment if supervised and guided by the staff in their role relationships with other patients in a therapeutic community. Moreover, the treatment of staff casualties is given the consideration it deserves.

The experiences reported in this paper show the relative ease with which some of the principles of a therapeutic community can be tried out in a State mental hospital or in a University psychiatric department in a general hospital. Time alone can tell how useful this experiment in social reorganization has been.

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DEMONSTRATION OF A PSYCHOSOMATIC RELATIONSHIP

BY MARYSE METCALFE*

An illness cannot be assumed to be psychosomatic until it has been demonstrated objectively that physical events which are part of that illness, tend to occur after or in conjunction with psychological events of a particular nature. This might in theory be demonstrated by three different methods: firstly by studying the emotional events associated with the beginning of the illness or with its recurrence; secondly by measuring those underlying physiological changes relevant to that illness which accompany or follow specific emotional changes; and thirdly by describing as many as possible of the emotional and relevant physical changes over a period of time for a single individual and attempting to find out how they relate to each other.

The latter method appears particularly suitable to the study of asthma. Here the attack is a dramatic enough event to be directly observed and recorded and the physical end of the connexion can thus be easily assessed. But the emotional event which precedes it is obviously more difficult to detect; it is never simple to obtain an objective reporting of emotional states whether through introspection or from an outside observer. Alexander & French (1941) rightly point out in their monograph that those emotional events which they believe to be associated with the occurrence of the asthmatic attacks may well have been directly conditioned by the analytical situation itself; this would partly explain the importance given to conflicts about dependence. In the absence of direct assessment of emotion one can consider, instead of the emotion proper, certain well-defined and observable environmental situations which are presumably related to the specific emotion. The following study is

an attempt to demonstrate a relationship between attacks and an objective and well-defined situation which was assumed to possess an important emotional loading for the patient.

PERSONAL HISTORY

An unmarried girl aged 21 had been sent to the Maudsley Hospital by her industrial physician because her job was in jeopardy owing to frequent absences with attacks of asthma.

She had developed asthma at the age of 5 following frequent colds. Her schooling was interrupted by frequent attacks which often lasted for three weeks. From 7 to 15 she was evacuated from London and lived with a foster-mother away from her family. Her attacks continued, but in the last year of that period she had improved greatly and was mostly free of them. She then returned to her own home in London and her attacks immediately started again, reaching a peak of intensity when she was 19. For the two years prior to her admission to hospital she had been improving but had suffered three severe attacks, each lasting two or three weeks and also a mild attack every morning during the whole of the two years. In addition to the asthma she complained of frontal and temporal throbbing headaches which occasionally culminated in vomiting. At the time of her admission she was living at home with her mother. The father, a drunkard who gambled, swore and quarrelled with everyone, had left home two years previously. In the home there also lived her mother's lover, and her father's adoptive father.

The patient was a well-developed girl with mild acne on her face and neck. There was no physical abnormality in any system. She was active, cheerful, but was subject to occasional bouts of irritability and depression. Her

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intelligence was below average (Progressive Matrices I.Q. 89, Wechsler-Bellevue I.Q. 82). She was quite successful in her job as a hairdresser, although she was in conflict there with her immediate superior—a woman whom she disliked intensely and towards whom she was rude and aggressive. Superficially sociable, she had no intimate friends and her hobby of ballroom dancing was her main interest. She professed to no set purpose in life.

For her asthma she had been referred to an allergist at the age of 16; skin tests had shown a positive reaction to house dust, beef and pork, but she had received no specific treatment. She herself had not asked to see a psychiatrist and had been surprised when her physician had recommended her to do so.

CLINICAL FORMULATION

When the clinical investigations were completed the following formulation was made by the psychiatrist. 'The attacks of asthma could result in this patient from several stimuli, physical ones (allergens, infections) or emotional disturbances. The key figure in her life was her mother to whom she had ambivalent feelings. When asthmatic attacks resulted from emotional disturbances this disturbance was connected with the mother. The attacks were most probably an expression of her inhibited aggression. Free ventilation of the patient's hostile feelings both generally and more specifically toward her mother would lead to their modification and hence to a diminution in the frequency or severity (or both) of her attacks.'

Attempt to start an attack experimentally

Initially an effort was made to precipitate an attack by presenting the patient with emotional stimuli connected with her mother. These consisted of T.A.T., Rorschach cards, and words related to mother. This experimental approach was based on the claim made by clinicians that an attack can be started in an asthmatic by subjecting him to a specific emotional stress. But the approach failed here and the patient never developed an attack under those conditions.

Interviews

It was then decided to turn to a passive method of recording as many observations as possible of the patient's daily life. This was linked with interviews aimed at ventilating her feelings.

The patient was interviewed 66 times over a period of 85 days. Those interviews were recorded in full, the interviewing psychologist maintaining a friendly but passive attitude throughout. For the longest part of the interview the patient was asked to speak freely on a series of selected topics. Each was selected by the psychologist prior to the interview; the topics chosen were Mother, Father, Foster-mother, Grandfather, Step-father, Sex and Work. But at the beginning of each interview, the patient, who was keeping a detailed day-to-day diary, reported on all her symptoms, moods and reactions. A record was made of all these variables.

Each daily recording included:

(a) All symptoms related to respiration. These were of two sorts, the first a fleeting wheezing or tightness of the chest, which the patient dismissed as 'not real asthma'. Then there were the 'real' asthmatic attacks. These consisted of tightness, wheezing and severe respiratory distress. The present study is only concerned with these to the exclusion of all other physical symptoms. These attacks occurred on 15 days of the 85 she spent in hospital.

(b) Other physical symptoms not related to respiration. The patient complained of sixteen mild symptoms (headaches, etc.) throughout her stay.

(c) All her activities, such as games, dancing, occupational therapy, shopping expeditions, meetings with her mother and visits to her home or to friends' homes. She also reported her moods, her wishes, her dreams, arguments with patients or with nurses, crying bouts, etc.

Demonstration of relationship

The recordings were tabulated after the patient left hospital. The following hypothesis was formulated: there existed a demonstrable

relationship between meetings with her mother and 'real asthmatic attacks'.

Table 1

Occurrence of asthma —	Days with asthma 15	Days without asthma 70
Within 24 hours of being with mother	9 (60 %)	14 (20 %)
Not in contact with mother for preceding 24 hours	6 (40 %)	56 (80 %)

Table 1 demonstrates the probability of such a relationship. Statistically this table yields a χ^2 of 10 (8 when Yates's correction is applied), which is significant beyond the 1 % level.

Additional findings

(a) *Mother and home.* Within this relationship the following is worth emphasizing. The patient saw her mother twenty-three times during her stay in hospital; these meetings rarely took place in the hospital, as the patient was allowed out for separate afternoons and for whole week-ends, and could therefore meet her mother either at home or elsewhere. The twenty-three occasions when she saw her mother were divided into 'with mother at home' and 'with mother but outside home'.

Table 2

	Followed by asthma	Not followed by asthma
Meeting mother at home	7	5
Meeting mother outside home	2	9

Although here the χ^2 lies only between the 0.05 and 0.10 level of significance, Table 2 suggests that the situation 'mother-home' was more closely related to the attacks than the 'mother-out' one.

Three visits at home alone when the mother was absent did not result in any attack. Moreover, the patient spent two week-ends with

friends in their homes again with no subsequent attacks.

(b) Other events, such as the occurrence of interviews, violent exercise (tennis, dancing) or marked changes in the weather, had been recorded. On inspection there did not emerge any relationship comparable to that demonstrated. Nor was there any indication of a temporal regularity which would have suggested a connexion between attacks and the patient's menstrual cycle.

(c) The value as a means of prediction of the relationship observed during her stay in hospital, was tested after her discharge. The attacks had by then become much less frequent. Before entering hospital the patient said she had suffered daily attacks during the preceding two years. For a week prior to, and for five days following, her admission she suffered no attack. Dividing the rest of her stay in hospital into two periods of 40 days, she experienced thirteen attacks during the first period and two attacks during the second period. After her discharge she periodically reported to the Out-patients Department and the occurrence of her attacks has been recorded, albeit in a much less reliable fashion for 20 months after her discharge. She was then living away from home in pleasant surroundings but went occasionally to see her mother in London. After a few months she married and, despite disagreement with her mother-in-law, the marriage proved happy and successful. She carried on with her job as a hairdresser in another branch of the same firm and in a much more congenial atmosphere.

During these 20 months she reported nine attacks, and the prediction that they would occur in conjunction with the 'mother-home' situation was verified in eight out of nine cases.

DISCUSSION

This investigation shows the possibility of demonstrating objectively a connexion between a specific emotion (defined here as an environmental situation which is assumed to be emotionally loaded) and the occurrence of an asthmatic attack. Some aspects of this

method of observation and demonstration require comment:

(a) The establishment of such a connexion in no way diminishes the importance of the constitutional predisposition, nor does it exclude the possibility of causation by physical stimuli. Moreover, although at this phase of the patient's life it is the mother who seems to be endowed with emotional significance and who thereby provokes attacks, it may nevertheless be that any emotion however caused—provided it reached a high enough intensity and mobilizing power—could have the same effect.

(b) Suggestion may well have played a part; the physician had told the patient at the beginning of her stay and twice again later that her mother was linked to her disturbance. This does not invalidate the demonstration of the connexion between the two events, but it does indicate the desirability of controlling the use of suggestion in future similar work.

(c) At the beginning of the investigation the patient had been presented with verbal and pictorial stimuli connected with her mother, but these did not provoke any attack. Nor was there any relationship between the many interviews at which she discussed her mother and an ensuing attack. This, together with Table 2, suggests that for this girl, the more concrete the situation, the more effective it is in its psychogenic causation. But further work may show that with a more intelligent, introspec-

tive and introverted subject, ideas or symbolic representation, much less amenable to objective recording, would play a larger part in the precipitation of the attacks.

SUMMARY

This report on an asthmatic patient demonstrates the existence of a significant relationship between her attacks and the emotional situation of meeting her mother. The conclusion is derived from the recording of as many observations as possible during her stay in hospital and holds true for a period of almost two years following her discharge.

ACKNOWLEDGEMENTS

This study was carried out under the medical direction of Dr Leigh and with his help. We would both like to thank Dr Melville Balfour, Medical Officer to John Lewis Partnership, London, for recognizing the girl as a suitable patient for our work and for referring her to us.

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REVIEWS

Genetics and the Inheritance of Integrated Neurological and Psychiatric Patterns. Edited by DAVENPORT HOOKER and CLARENCE C. HARE. Research Publications, Association for Research in Nervous and Mental Disease, vol. XXXIII. (Pp. xiv + 426. 76s. 6d.) London: Baillière, Tindall and Cox. 1955.

It may be an over-simplification to say that psychiatrists are divided into two camps according to the aetiological theories of mental disease which they prefer to hold. But such an over-simplification would contain a large element of truth. There are certainly many psychiatrists who like to think in terms of heredity and constitution; and many others who like to emphasize the aetiological importance of environmental factors.

This volume, published by the Association for Research in Nervous and Mental Disease, deals specifically with inherited and innate trends in neuro-psychiatry. The chapters had been read at a meeting of the Association in 1953, and remarks made in the ensuing discussion have also been included in the book. A similar publication by the Association had appeared 30 years before, but there has been so much progress in the field of genetics since then that this new volume is a welcome addition to the literature on the subject.

The book caters for many tastes and interests. There is an elementary first chapter on the principles of human genetics, and there are more erudite and sophisticated chapters on genetic problems in the morphology, biochemistry and physiology of the nervous system. The clinician will find a rich and varied fare in chapters on the inheritance of such diseases as lipidoses, phenylpyruvic oligophrenia, hereditary ataxia, epilepsy and mental disorder; and in chapters which provide condensed accounts of such problems as innate growth factors in the development of infantile behaviour (Gesell), the constitutional inadequacies associated with infantile autism (Kanner), the inheritance of intelligence, and the prematurity of eugenic measures in the present state of our ignorance.

The age-old controversy of nature versus nurture crops up in many chapters, but it does not elicit dogmatic pronouncements. There are some genes, like those for the human blood-group antigens, which will produce their effects under any environmental conditions which permit the survival of the organism. There are many other genes which only manifest themselves overtly when specific environmental factors are present. In general, the effects of nature and nurture are obviously so closely tangled up that it would be futile to try and unravel their respective contributions and significance. This does not, however, mean—as this book amply demonstrates—that it is impossible to study genetic and environmental factors independently.

It is curious to note that several authors lean over backwards to emphasize that an illness is not necessarily incurable merely because hereditary factors play a significant role in its aetiology. There is an excellent contribution by Kallmann, for instance, which succinctly surveys the genetics of psychotic behaviour patterns, but ends with *non sequitur* remarks that 'in order to understand certain basic principles in the formation of psychotic behaviour patterns, it is necessary to delve into the substratum of gene action as well as into the subconscious'; and that many genetic studies have 'succeeded in confirming the belief, at least theoretically, that mental disorders are both preventable and potentially curable'. Yet such lipservice hardly accords with his claim that in manic-depressive psychosis he had found a concordance rate of nearly 100 % for identical twins (and only about 25 % for sibs and fraternal twins). If valid, such a finding would mean that manic-depressive psychosis was almost entirely and inevitably determined by heredity. But Kallmann had to modify that claim in the discussion when he admitted that the concordance rate for identical twins was 'probably an artificial maximum value' because his twin index cases had consisted of hospitalized patients only.

There are many stimulating and thought-provoking observations in this book. It certainly can be recommended as a useful corrective for those psychiatrists who have a one-sided

inclination to search for aetiological factors exclusively in the environments of their patients.

F. K. TAYLOR

Social Casework in Marital Problems: the Development of a Psychodynamic Approach.

By KATHLEEN BANNISTER, ALISON LYONS, LILY PINCUS, JAMES ROBB, ANTONIA SHOOTER and JUDITH STEPHENS, with an introduction by Doctor J. D. SUTHERLAND, Director, the Tavistock Clinic. (Pp. 199. 15s.) London: Tavistock Publications Ltd. 1955.

This book by a group of caseworkers is an important publication not only in the field of marriage guidance but also in the much wider fields of social and psychological medicine. Those interested in the difficult problem of psychotherapeutic training short of full psychoanalysis and in the best utilization of medical and lay therapists will find a wealth of interesting material.

The ever-increasing need for marriage counselling and the realization that the usual casework technique, which has tended to be of the active directive type, was inadequate when it came to providing effectual and lasting help in marriage problems led the Family Welfare Organization to sponsor a pioneer experiment aimed at providing caseworkers with new skills and techniques, especially those derived from psychoanalysis. They aimed at finding out how much of the knowledge and experience of unconscious motives could be safely used by caseworkers without personal analyses.

The group, called 'The Family Discussion Bureau', obtained the aid of two medical psychoanalysts from the Tavistock Clinic and one lay psychoanalyst for regular case conferences. These conferences were in the nature of group discussions in which the dynamics of marriage and the relationship between client and worker could be explored and clarified, so that the caseworker could see for herself the next step in her casework. Chapter 8 gives a good illustration of how the help of the group gives the caseworker the understanding and support to continue with a difficult case. In spite of emphasis of development of a new technique caseworkers were still encouraged to work in their own individual way. Too little emphasis has been placed on this in the past

at the expense of loss of a natural facility which many have to be helpful to others. The lay psychoanalyst also spent time with each individual caseworker. The focusing of attention on a specific problem such as the marriage relationship simplified treatment and allowed progress to be made more rapidly. The well-recorded case histories show, however, that improvement in the marriage is often the result of greater maturity of one or both partners and is accompanied by better functioning as parents and workers. As might be expected it was quite impractical for one worker to see both partners in the marriage; each partner has to have a separate worker. No attempt was made to treat seriously sick partners, and such were referred for full psychiatric treatment when practical.

There have obviously been very great difficulties encountered in this project. They state that it was two years before any clear ideas emerged about the kind of help which could be given to clients, but the most serious fact was their high rejection rate of workers. Out of approximately 250 applicants sixteen were accepted between September 1948 and October 1953 and of these two left for family reasons and eight appointments were not confirmed after probationary period. Most psychiatrists will agree that counsellors should be highly selected. It is a pity that little is said about the method of selection, particularly who makes the selection and on what grounds applicants and those on probation are rejected.

The implications of this book are that it is possible for selected caseworkers to develop their knowledge, technique and confidence as marriage counsellors so that with relatively few interviews per client a substantial proportion of marriages are made happier. It also presents one way in which highly trained analysts can devote some of their time to work which will result in their experience being spread over a wide area. This in itself has important application in preventive psychiatry. Somewhat similar methods to what were used in this project should be of value in helping psychiatrists and even general practitioners who do not wish to become full analysts to enlarge their experience in psychotherapy. One of the Tavistock team associated with this project has already published a report on a rather similar scheme with general practitioners.

The book is clearly written and deserves to be widely read.

REGINALD W. MEDLICOTT

Psychotherapy and Personality Change. Edited by CARL R. ROGERS and ROSALIND F. DYMOND. (Pp. x+447. \$6; 45s.) The University of Chicago Press, 1954; London: Cambridge University Press, 1955.

The evaluation of the effects of treatment on mental illness, is rendered difficult, on the one hand by the variety and complexity of the variables involved and, on the other hand, by the inadequacy of the psychological tools available for appraising personality for the purposes of research. To these are added other important difficulties, of an ethical and practical nature, which are only too familiar to those who are actively engaged in psychotherapeutic treatment. Not least of these is the fact that considerations of research often have a detrimental impact on the interests of the patients who are used as research subjects. The work of The Chicago University Counseling Center in this very difficult field of research is, therefore, a laudable enterprise and the volume under review presents the first findings of a complex, ramified and continuing research programme which has been going on for more than four years.

The aim of the research was to study the behavioural and psychological changes in relation to client-centred therapy and simultaneously to provide data for studies of the process of psychotherapy. The criteria of change comprised a congruence of various approaches in terms of which changes were evaluated. The experimental group consisted of twenty-nine patients who had at least six client-centred interviews with one of the twelve therapists who participated in the research. The subjects were above average in intelligence (sixteen were university students) with an average age of 27 years. Their socio-economic status was middle class. Most of them could be classified as mildly or moderately neurotic. Two types of controls were used. A group of patients, who agreed to wait for 60 days prior to treatment, served as their own controls. There was also an equivalent control group. The methods of personality appraisal were questionnaires and the T.A.T. The former included The Willoughby Emotional Maturity Scale, a Self-Other attitude scale and a scale of 100 self-referent statements. The tests were given four times to the own-control group and three times to the other subjects, the intervals chosen being pre-wait, before therapy,

after therapy and follow-up (6-12 months). Two follow-up interviews and a questionnaire completed the investigations of the subjects but the judgments of two friends of the subjects were also used in evaluating changes.

The results certainly point to what would be generally regarded as significant changes, probably for the better, in terms of the measures used. How far any general conclusions can be drawn with regard to the efficacy of client-centred therapy in relation to mental illness is, however, a different proposition. The sample used is restricted with regard to the type of population and the type of disturbance or illness. In connexion with the last it seems rather puzzling that in a book which devotes 150 pages to two interesting case studies, enough space could not be found for a detailed description of the problems of the patients. Had this been done it would have given a clearer picture of the type of patients in whom client-centred therapy is effective.

With regard to controls, the compromises arrived at by the research team were unavoidable even if they were detrimental to strict scientific requirements. In researches of this type, the waiting period cannot be easily equated with the therapy period although an increase in the frequency of interviews could perhaps reduce the differences between the two periods. Therapeutic needs, practical considerations and other difficulties probably ruled this out. Similar considerations apply to the equivalent controls. If they are equated for personality problems, their therapeutic needs would preclude their being used merely as subjects in a research.

In the instruments used, perhaps less emphasis could have been placed on questionnaires. One also wonders if the use of the Q technique is desirable in studies of this nature. The present reviewer is far from convinced that human personality can be squeezed, even uncomfortably, within the confines of a normal or a quasi-normal curve, for the convenience of statisticians.

An important aspect of the design is the apparent assumption that treatment can be regarded as a variable. Many questions arise here. For instance, is the therapeutic process the same for an experienced therapist and for a therapist whose acquaintance with therapy extends to only 341 interviews? What part do un verbalized communications play in the therapeutic process? What is the importance of the patient-therapist

relationship in treatment, irrespective of the techniques used?

The authors are themselves very much alive to the deficiencies in the research and to the many and varied problems which have emerged from their arduous endeavours. Attempts at answering some of the problems connected with the therapeutic process are under way. The reviewer feels that those who have read this first volume will look forward to further contributions from Carl Rogers and his collaborators.

M. M. DESAI

Psychopathology and Education of the Brain-injured Child. Vol. II. *Progress in Theory and Clinic*. By ALFRED A. STRAUSS and NEWELL C. KEPHART. (Pp. 266. \$6.00). New York and London: Grune and Stratton. 1955.

The clinical syndrome of exogeneity in brain-injured mental defective children has been described by Strauss and Lehtinen in the first volume of this series with the subtitle 'Fundamentals and Treatment of Brain-injured Children'. The present presentation of this concept extends it to children who are not intellectually defective but show nevertheless characteristic aspects of brain-injury in tests, behaviour and learning situations.

Most of the material is by now well known through the numerous papers by Strauss and Werner and of course through the first volume of this series. There is, however, something in the nature of a revision of the original formulation of the concept in the light of changes in neurological and psychiatric theories. More than half of the book is taken up by a detailed but easily understandable exposition of the neurological background, and a discussion of the psychopathologies of perception, language, concept formation and behaviour. The lucid discourse is accompanied by diagrammatic illustrations of doubtful value and their levity appears to be rather misplaced in a book for serious professional reading. A chapter is contributed by S. Goldenberg who discusses the value of various tests for the diagnosis of brain injury. He summarizes very shortly his own Ph.D. thesis which indicated that the Ellis Visual Designs and the Marble Board Test 'show the greatest promise in differentiating between brain-injured and non-brain-injured children'. In view of the fact that an Appendix presents a scoring method for these two tests and Goldenberg's thesis is

apparently not published, it is a pity that neither norms nor other figures are quoted. Except for a reliability coefficient of 0.9 of the rater to rater intercorrelation on the Ellis Design Test, the author gives only vague generalizations relating to this test which contributes 'nearly all of the maximum discrimination' and declares that both tests are 'much superior'. Strauss attaches great importance to psychological tests and relies on their results even in the presence of negative neurological findings.

There are many subnormals, whose 'behaviour problems' cannot be solved therapeutically by a judicious handling of the relationships between the individual and environment and who are finally regarded as 'unstable' and 'psychopathic'. There are also many who, despite normal intellectual endowment seem to be unable to adjust themselves to life. Anyone dealing with children in child guidance clinics, in special schools or with 'ineducable' certified defectives has frequently come across those 'queer' cases who do not conform to the simpleton type with an overall mental inferiority. Most progressive workers have concentrated on dealing with personality problems arising from assumed faulty relationships. The Strauss hypothesis suggests that undetected brain injuries may often be the cause of unsettled behaviour and that we should not quite so often rely exclusively on the explanation of unsatisfactory parental relationships and childhood experiences. The Strauss-Kephart work holds out a hope that those apparently untrainable and hopeless cases could be treated and be 'cured' to a certain extent if the problem is considered from a new angle. Workers in the field of Mental Deficiency have realized that the whole problem of the patient classified as 'subnormal' will have to be rethought and they will welcome this thought-provoking contribution. It should also appeal to all psychiatrists, psychologists and educationists as presenting a reasonable working hypothesis and concrete suggestions for tackling a very difficult problem in education and training.

H. C. GÜNZBURG

Integration of Religion and Psychiatry. By W. EARL BIDDLE. (Pp. 171. 26s.) New York and London: Macmillan. 1955.

Dr Biddle is a psychiatrist, and he is a Christian who believes in an uncomplicated way in the

Christian revelation concerning the nature of God. He seeks in this book to show a way towards a reconciliation between the Christian religion and psychoanalysis. It might have been expected that he would invoke the aid of Jung in this endeavour. He devotes, however, only a few lines to him; this may be because Jung is not Christian enough for him.

In seeking the bridge between psychoanalysis which deals with 'intermediate goals' and religion, which deals with 'ultimate and absolute' values, he arrives at the 'good fantastic father', i.e. the good father image as representing God who is the 'supreme good', the God behind the image being given by Christian revelation as an ultimate reality. The reconciliation which he proposes is a false one, since it falls down on the problem of evil, his treatment of this problem being naïve even for the more developed Christian standpoint. Evil is to be annihilated, but with the aid of permissive parents *taken from* the psychoanalytic attitude. The devil is merely an example of mental illness. The meaning of true ambivalence is not understood. For instance it is a 'misunderstanding' to hate God, because God is good, and one cannot 'reasonably hate good'. His attitude to the 'fall' is Christian; he does not appear to realize that without it, nothing could ever have happened and we should still all be angels dreaming in paradise. One suspects that the individual has not yet been born out of his world, since all images or symbols or figures are parental and all women are aspects of the mother. There is no suggestion that there could be a woman in the person's life who is not a mother figure. Neither are there any true symbols. All symbols are signs either of a physical object or a primary spiritual reality which has already been revealed. Nor is there any room for doubt regarding the revealed absolute good.

His presentation tends to be 'ex-cathedra'. I counted ten 'musts' in two pages in a section dealing with Hope and Tolerance. Here and there were real flashes and subtleties which struck me, such as the way to the spiritual being through material objects, a path for which he receives support from Thomas Aquinas.

I cannot see that this book will do much towards reconciling psychoanalysts to religion, though it may be of some assistance to some clergy in relating God to the parental images nearer home, and giving some pointers as to how these undoubtedly real phenomena work.

R. D. SCOTT

A Survey of Clinical Practice in Psychology.
Edited by E. A. RUBINSTEIN and M. LORR. (Pp. xvii+363. \$6.00.) New York: International Universities Press Inc. 1954.

This is a comprehensive account of the kind of work American clinical psychologists are currently engaged on. Its 27 chapters constitute descriptive and evaluative reports of their roles and techniques in various fields. These are grouped under three main headings: Institutions and Clinics such as the Menninger Foundation where clinical psychology has been long established, large-scale Government agencies like the Veterans' Administration and settings where the development of psychological work has been more recent. The latter section ranges widely from prison and court work through a variety of specialized clinics to private practice.

The contributors are of obvious standing in their various fields. A vast amount of information is presented in detail on the work undertaken. This is done with restraint and the book is almost entirely free from over-selling or special pleading.

There is enough historical perspective to show that clinical psychologists have passed beyond the restricted role of 'intelligence tester' and are now undertaking a considerable diversity of diagnostic and therapeutic functions. This great flexibility would appear to arise from a realistic appreciation of the demands of specific field settings combined with a sensitivity to the needs of individual psychologists working in them. The fact that these varied roles are so difficult to sum up and are still so much under discussion makes especially valuable this account of what psychologists are actually doing.

American practice would appear to be centred on psychodiagnostics in the broadest sense with an emerging emphasis on research and training roles and an increasing development of therapeutic experience. Even where therapy is not a major operational role it is generally regarded as a necessary background to sensitive and realistic diagnostic work.

For psychologists and their professional colleagues wishing to compare their current roles and relationships with their American opposites in similar fields this is a most useful and encouraging volume. A similar account of what clinical psychologists are now doing in this country would go a long way to remove still lingering

misconceptions of their actual and potential roles within our own framework. Perhaps this book will stimulate them to write it.

R. L. MORRISON

The Psychiatrist and the Dying Patient. By K. R. EISSLER, M.D. (Pp. xiii + 338. Three plates. \$5.) New York: International Universities Press, Inc. 1955.

Thanatology, the scientific study of the causes and phenomena of death, is an unexpected topic in psychiatric literature. The atmosphere of solemnity and finality associated with death is hardly likely to make the subject an inviting one. Dr Eissler, a member of the faculty of the New York Psychoanalytic Institute, is concerned mainly with Freud's well-known theme that death in the form of a death instinct dominates life. Freud's thanatology was developed slowly and finally it occupied a central place in his psychological system. Yet psychoanalysts have paid scant attention to the subject and regard death as a biological problem. The emotional reasons behind this are discussed by the author with considerable penetration. He refers, far too briefly, to capital punishment, particularly the psychological response to the knowledge that death will come at a pre-determined moment.

Should a patient be told that his illness is incurable? Eissler believes that man has always an unconscious knowledge of his impending death. Yet his answer to the question he raises is vague and somewhat confused by allusions to suicide.

Three case histories illustrate some of the main themes of the introductory chapters. The last of these recounts the psychiatric exigencies relating to the patient's death, and the potential dangers—such as the countertransference—to the psychiatrist. One of the dangers mentioned—that the patient, unknown to the psychiatrist, may make a will in his favour—is not likely to cause general alarm.

Dr Eissler has made a serious and, within set limits, a notable contribution. At times speculation and theory out-run the facts as when it is suggested that puerperal depression, following as it does the peak achievement of childbirth, has features all its own. Nevertheless the book deserves the attention of analysts of every shade.

E. A. BENNET

Minds and Machines. By W. SLUCKIN. (Pp. 232. 2s.) Harmondsworth: Penguin Books, Ltd. 1954.

The first wave of enthusiasm and speculation about cybernetics seems to have passed. It is time to look at the fundamental ideas and concepts and to assess what will clarify and what will cloud our thinking in psychology. Mr Sluckin fortunately has the necessary unique training to do this and the ability to express himself, so that he can, by form and style reach a large number of readers, and direct attention to the important aspects of cybernetics.

The book starts by clear description of computing-machine theory, servo-mechanics, feedback, communication and information (the real 'stuff' of cybernetics), leads to the central nervous system via homeostasis, and thence to perception and memory to learning and thinking.

Reference to the history of the relevant machines and ideas helps to keep the discussion balanced and in perspective. None of the more dramatic 'cyberneticisms' are quoted, e.g. no hint is given of a cybernetic cure of any or all mental illness. And perhaps most important of all, the book does not include one single mathematical formula.

This is a worthwhile addition to the Pelican Psychology Series, edited by Professor Mace, and can be freely recommended as a sober, helpful and thoughtful piece of professional or leisure-time reading.

R. M. MOWBRAY

NOTICE

INTERNATIONAL ASSOCIATION FOR CHILD PSYCHIATRY: ASSOCIATE MEMBERSHIP

The International Association for Child Psychiatry and Allied Professions invites applications for associate membership.

The purpose of the Association is to promote child psychiatry both in practice and in research through effective collaboration with the allied professions of psychology, social work, paediatrics, public health, nursing, education and other relevant professions.

Associate membership is open to any child psychiatrist or member of an allied profession

who wishes to join, subject to his acceptance by the Executive Committee. Associate members are eligible for election as Officers of the Association, and as such will be entitled to vote at meetings.

The annual dues of an associate member are \$3 in U.S. currency, or the equivalent in other currencies (22s. sterling). Application forms are available from Mrs E. E. IRVINE, 14 Belsize Square, London, N.W. 3.

FREUD CENTENARY NUMBER

TO COMMEMORATE
THE CENTENARY OF THE BIRTH OF
SIGMUND FREUD

ON 6 MAY 1856

THIS NUMBER OF THE JOURNAL IS DEVOTED TO
CONTRIBUTIONS RELATED TO PSYCHOANALYSIS

Looking back, then, over the patchwork of my life's labours, I can say that I have made many beginnings and thrown out many suggestions. Something will come of them in the future, though I cannot myself tell whether it will be much or little. I can, however, express a hope that I have opened up a pathway for an important advance in our knowledge.

FREUD (*An Autobiographical Study*)

FREUD'S LIFE AND WORK

AN APPRECIATION OF ERNEST JONES'S BIOGRAPHY*

BY J. D. SUTHERLAND

The recency of his death, the freshness and vitality of the flow of his contributions in the decade before the war, the presence of his daughter actively at work amongst us, and so many manifestations of the disturbing impact of his ideas—all these add to what must surely be a widespread difficulty in feeling that Freud was born so long ago as 1856—the year which saw the end of the Crimean War and a year before the Indian Mutiny. In reflecting upon Freud's work, the psychologist therefore cannot easily get that historical detachment from which a due appraisal of its significance can be made. As Ernest Jones (1940) remarked in his essay on the occasion of Freud's death, it might take centuries before the bearing of his work on the weal and woe of mankind was truly appreciated and before full use was made of it. Few psychoanalysts would be more optimistic to-day in regard to the rate of this assimilation.

While it is idle then to speculate on the value of psychoanalysis for humanity in the future, there is one inspiring pleasure that the student of psychoanalysis can now give himself. He can learn about Freud as a man. Freud was remarkably consistent in his attitude that his personal life was his own. He stated on various occasions that though the story of his life and the history of psychoanalysis were intimately interwoven, 'no personal experiences of mine are of any interest in comparison to my relations with that science'. Yet all those indebted to Freud cannot but agree with Dr Jones when, in the

essay just referred to, he goes on to say apropos the making of an objective and comprehensive study of his personality:

One must, however, express the earnest hope that this will be done in the lifetime of those who knew him, for it would be a neglect of our duty to posterity to allow it to go by default. Future generations of psychologists will assuredly wish to know what manner of man it was who, after two thousand years of vain endeavour had gone by, succeeded in fulfilling the Delphic injunction: know thyself. Their wish will not be one of simple curiosity; they will understand that to know Freud's personality will bring them closer to the inspiration of his achievement. They will, furthermore, have a legitimate scientific interest in trying to comprehend the precise balance of mental energies that made it possible for him to accomplish his Herculean feats. For Herculean they truly were. Few, if any, have been able to go as far as he did on the path of self-knowledge and self-mastery—even with the aid of the pioneer torch he provided with his methods and previous exploration, and even with the invaluable assistance of years of daily personal work with expert mentors. How one man alone could have broken all this new ground, and overcome all difficulties unaided, must ever remain a cause for wonder. It was the nearest to a miracle that human means can compass, one that surely surpasses even the loftiest intellectual achievements in mathematics and pure science. Copernicus and Darwin dared much in facing the unwelcome truths of outer reality, but to face those of inner reality, costs something that only the rarest of mortals would unaided be able to give.

This then is perhaps the most arresting tribute that can be paid to Freud in this year of the centenary of his birth, for Dr Jones has given us in his biography the means to study the qualities of Freud the man and to trace

* *Sigmund Freud. Life and Work.* By Ernest Jones. London: The Hogarth Press. Vol. I, 1953; vol. II, 1955.

something of how these qualities and the experiences of his life contributed to the miracle of his achievements.

No one, of course, other than Dr Jones could have produced what is most characteristic of this authoritative account—the intimate first-hand knowledge of Freud and his work, and at the same time the masterly skill with which the stupendous mass of data available has been organized. That it has been a labour of love shines through almost every page. Yet Dr Jones has taken the greatest pains to keep the portrait of the man in line with the realities of his personality. The admiration and the respect, and who would not feel those in face of Freud's life and work, never raise the suspicion of hero-worship. Freud's genius is presented in all its facets; but so too are the irrational components in his loves and hates and his 'very considerable psycho-neurosis'.

In ordering his material, Dr Jones has chosen to disentangle from the complex skein of Freud's activities, the main lines of his work. Thus instead of a series of temporal cross-sections, each depicting the concurrent activities, he has dissected the overlapping and intertwining threads. This arrangement has obvious advantages in that the reader is presented with separate and complete accounts of, for instance, 'The Cocaine Episode', 'Freud as Neurologist', or 'The Breuer Period'. On the other hand, it imposes on the reader the need to keep in mind the inter-relation of the activities described under the headings of the various themes. Thus, in the critical decade of last century which culminated in *The Interpretation of Dreams*, the origins of this epoch-making work can be appreciated fully only when the chapters on the The Breuer Period (1882–95), Early Psychopathology (1890–97), The Fliess Period (1887–1902), Self-Analysis (1897–), and Personal Life (1890–1900) are assimilated and their events synchronized. It must be said, however, that Dr Jones, with his extraordinary grip of the whole panorama of events, keeps reminding the reader of the important simultaneities.

To the student of psychoanalysis the matter of central interest in Freud's personality is how it was that Freud was able to conduct his self-analysis to the point of seeing the full implications of his own Oedipus complex. This is perhaps too involved a question for there ever to be a full answer. No doubt, as Dr Jones remarks in his preface to volume I, there will remain ample room for intensive studies of particular phases in Freud's development. Many interesting features, however, may be noted. Freud had two devoted parents for whom he had a deep and lasting love. As the oldest child of his father's second marriage, he was the special object of his young mother's affection. The Riddle of the Sphinx must have been a particularly pressing one for him, for not only were there his seven siblings arriving, but there was also the complicated family situation whereby one of his half-brothers by his father's first marriage was already a father when Freud was born. This family lived almost as part of Freud's family and his nephew, a year older, was Freud's constant companion in his early years. His passion for knowledge and his remarkable gift for paying attention to the fact that did not fit in with existing theories had led him in the study of his first neurotic patients to the recognition of the role of infantile sexuality in personality development. For the elucidation of his own emotional development through the analysis of his dreams, Freud was also helped in at least four other ways. First, he was a good dreamer and he held the view that anyone who was honest, fairly normal and a good dreamer, could go a long way in self-analysis. (However, as Dr Jones dryly adds, 'everyone is not a Freud'!) Secondly, at this time, he was to some extent able to use the intensely emotional relationship with Fliess (and which only came to light with the publication a few years ago of his letters to Fliess) in much the same way as the patient uses the transference. Thirdly, at a critical phase of his searchings, his father died. This emotional upheaval acted as a powerful stimulus for the release of his childhood feelings about his father. Lastly, his

mother was there to give him from time to time confirmation of the analysis of some of his childhood recollections. Also, it must be added that by this time Freud had six young children whom he could observe with eyes from which the age-long blinkers against infantile sexuality were being removed.

The effects of his own Oedipal situation on his work will doubtless provide grounds for speculation for long enough. One interesting possibility that emerges alongside the many other suggestions made by Dr Jones concerns Freud's attitude to his therapeutic motives. These motives he was often at pains to deny—to assert that he was concerned with understanding rather than healing. Despite this denial, his therapeutic motives must have contributed to his patience and persistence in his continuance with his neurotic patients. Perhaps this aspect had to be repressed because of its connexion with a damaged father in his early phantasies. At any rate it is interesting to note that when ten years old he was taken by his father to see the wounded soldiers being transferred from the train to carts on the way to hospital. Their plight impressed him so deeply that he asked his teacher to organize groups to make 'charpie' (early surgical dressings) from old linen. Again, in the early stages of 'The Cocaine Episode' he wrote to his fiancée that he expected cocaine to win its place in therapeutics, and 'to abolish the most intractable vomiting, even when this is due to severe pain; in short it is only now that I feel I am a doctor since I have helped one patient and hope to help more'. Finally, it may be noted that in a later letter to her he mentions a recurrent dream. 'Last night I dreamt I was fighting someone for your sake and had the disagreeable feeling of being paralysed just when I wanted to strike a blow. I often dream that and it comes at the phase of the dream where I still have to pass my doctor's examination, a task which had tormented me for years' (vol. I, p. 386).

It is certainly hard to believe that one who had so much tender feeling for his intimates

was not imbued with a powerful urge to relieve human suffering.

Freud's amazing productivity, which the long list of his works indicates, becomes almost incredible as one goes through his life. There were not only the well-known books and papers, but also a great deal of abstracting and editing and a volume of correspondence that is staggering; and all this was in addition to his long hours of clinical work and his devotion to his family—not only to his wife and six children but to his parents and many relatives.

Leaving aside Freud's intellectual achievements, the portrait of the man that develops in Dr Jones's volumes is assuredly of one of the great personalities in history. Many qualities spring to mind, but above all gleam a striking nobility, steadfastness and simplicity; and an intense emotional responsiveness and sensitivity. Perhaps it is this great capacity for feeling that makes the most vivid impression because it was this aspect of his life that Freud tried hardest to hide. His irreproachable life as a family man would make him a model for all time. What sentiments in the future husband could be more touching than those in one of his early letters to his fiancée? (vol. I, pp. 153-4):

All we need is two or three little rooms where we can live and eat and receive a guest and a hearth where the fire for cooking does not go out. And what things there will have to be: tables and chairs, beds, a mirror, a clock to remind the happy ones of the passage of time, an armchair for an hour of agreeable day-dreaming, carpets so that the Hausfrau can easily keep the floor clean, linen tied up in fancy ribbons and stored on their shelves, clothes of the newest cut and hats with artificial flowers, pictures on the wall, glasses for the daily water and for wine on festive occasions, plates and dishes, a larder when we are suddenly overcome with hunger or a guest arrives unexpectedly, a large bunch of keys which must rattle noisily. There is so much we can enjoy; the bookcase and the sewing basket and the friendly lamp. And everything must be kept in good order, else the Hausfrau, who has divided up her heart in

little bits, one for each piece of furniture, will object. And this thing must be a witness to the serious work that keeps the house together, and that thing of one's love for beauty, of dear friends of whom one is glad to be reminded, of towns one has seen, of hours one likes to recall. All of it a little world of happiness, of silent friends and emblems of honourable humanity.

Little wonder he was awarded the Goethe Prize for Literature in 1930.

Another personal quality that is equally bright is his great sense of humour. Could any group of students in search for a party sketch do better than follow up his remark that the best sign of the acceptance of psychoanalysis would be when the shops in Vienna advertised 'gifts for all stages of the transference'? Again, after one of his lectures in the United States, a question was put as to why there should not be other essential causes of neurotic symptoms than sexual ones. His simple reply was 'I don't know either. I should have nothing against it. I didn't arrange the whole affair.' And when he received a letter from the income tax authorities expressing their astonishment that his income was not larger 'since everyone knows that his reputation extends far beyond the frontier of Austria', who would not have liked to reply as he did:

Professor Freud is very honoured at receiving a communication from the Government. It is the first time the Government has taken any notice of him and he acknowledges it. There is one point in which he cannot agree with the communication: that his reputation extends far beyond the frontier of Austria. It begins at the frontier (vol. II, p. 435).

As the young science developed, the growing band of adherents with the subsequent well-known secessions called into full play Freud's personal qualities. His scientific conscience could not brook what he felt to be deleterious compromises for psychoanalysis, and the future showed his wisdom in this respect. Nevertheless, in dealing with the bitter disappointments and the acrimonious

disputes, his comments, however sharp, were never mean.

Much of the second volume of the biography is devoted to Freud's ideas, and here Dr Jones's mastery of his subject is seen at its best. His lucid summaries of the well-known papers with a description of the settings in which they were written and the external events stimulating them, constitute a brilliant survey of Freud's thought. Here again Dr Jones retains the pattern of the first volume. He isolates main themes and then describes the development of Freud's ideas related to these themes rather than adhering to a strictly chronological order of presentation. As before, however, the chronological links between the themes are added. It may be held that these works are familiar enough; but Dr Jones is right in his belief that they all gain afresh from this account of their origins and their setting in the total sweep of Freud's experiences.

These two volumes cover some 950 pages and the third is yet to come. Some readers may find the degree of detail overdone, for instance in regard to Freud's holidays, and some may wish that Dr Jones had presented them with a shorter account of the essential personality of Freud. Dr Jones, however, did not set out to write a popular biography. He has tried to provide a record of the main facts of Freud's life while they were still accessible and to relate his personality and the experiences of his life to the development of his ideas. This he has done with extraordinary completeness. Furthermore, he has also fulfilled the difficult task of giving a detailed authoritative history of the early development of psychoanalysis. While the greatness of Freud cannot but be the focus of attention in this period, there also stand out in this comprehensive canvas, the talents of the early band of Freud's students and particularly of the Committee. This latter group of analysts, comprising Abraham, Ferenczi, Rank, Sachs and Jones, constituted themselves on Dr Jones's suggestion into an 'Old Guard' round Freud to give him the support of a band of reliable friends. Freud referred to them once when he

saw them in the front row of the audience at one of his lectures as *un parterre des rois*, and their intellectual status was assuredly kingly. The relationship of this brilliant group with the man who drew them and kept them for so long as a loyal group of associates bears eloquent witness to Freud's genius and personality. Dr Jones describes his own part in these vital early stages of the growth of psychoanalysis with objectivity and modesty. Nevertheless, it is abundantly clear that his contribution was a most important one and one which does him much credit. Indeed, it is one of the gratifying features of this biography that Dr Jones's own greatness stands out in spite of himself.

James Strachey's scholarship is now en-

suring that the full corpus of Freud's writings will be available in English in the definitive Standard Edition. When this is done and Ernest Jones's biography is completed by its third volume, then will the student of psychoanalysis be well provided for. In the quotation from his essay of sixteen years ago, Dr Jones expressed an earnest hope and inevitably set himself a duty. He has fulfilled the most important part of his task with the standards we expect of him. If national pride be allowed as a last note on this occasion, British psychologists can hold their heads high at the role of Dr Jones in his work for Freud and for the development of psychoanalysis—and for this great record of both.

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RECENT DEVELOPMENTS IN PSYCHOANALYTICAL THEORY

By H. GUNTRIP*

Psychoanalytical theory has been in a state of continuous development from the beginning. The genius of its creator, Sigmund Freud, so dominated this process that, during his lifetime, theoretical developments were almost if not quite wholly determined by himself. Here and there in his writings he adopts suggestions from some fellow workers, while their contributions were in the main elaborations and developments of new theories which he himself propounded. In sober truth all the fundamental new ideas *did* come from Freud himself.

Though we await the judgement of an impartial historian of psychoanalysis (if such there can be in matters so closely touching human emotions) it is probably not unfair to state that the works of men like Jung, W. Reich and Rank, each in different ways, exhibited ultimately a speculative bent rather than the predominantly scientific, analytical, clinical line of Freud, while Adler may be said to have raised the problem of ego-analysis prematurely, and too superficially. But it must be admitted that Freud's own speculative bent broke out in his theory of the death instinct. He himself wrote: 'What follows is speculation, often far-fetched speculation, which the reader will consider or dismiss according to his individual predilection' (1920, p. 27). Nevertheless, he thereafter refers to the conclusions of this book as if they were now established facts. His speculations in the realm of the application of psychoanalysis to sociology have less bearing on basic matters of theory than have those in the book just quoted.

It was, however, indisputably Freud's own work that established psychoanalysis as a coherent and closely knit system. Perhaps it

was inevitable that in the first phase of psychodynamic investigation schools formed in isolation from one another, and an unscientific atmosphere of 'orthodoxy versus heresy and deviation' arose. At least this protected the distinctive features of Freud's own work, which could have been obscured and lost, to the great disadvantage of future workers. Development has gone on within the psychoanalytic movement more narrowly defined, and it has been felt necessary to state that theoretical progress cannot be halted with the death of Freud. Brierley writes:

As knowledge grows, older hypotheses become inadequate and have to be revised, expanded, or reformulated to contain newer facts. Freud did this himself, time after time, and if psycho-analysis is to continue to develop as a living science this process of recasting hypotheses and expanding theory must also continue... To expect to conserve the letter of all Freud's statements, as a kind of 'Bible of Psycho-analysis' is to condemn psycho-analytic enquiry to stasis and, therefore, psycho-analysis as a science to death (1951, p. 89).

But it is not insignificant that such words needed to be written. *In a broad sense an unconscious pattern of development as a process of a dialectical type can now be discerned.* Recent developments have not been haphazard and purely individualistic contributions. They have rather been determined by, and have arisen out of, that larger and all-embracing milieu of cultural change within which psychoanalysts like all other investigators must do their thinking. For example the influence of sociology (a science much less developed in Freud's creative period than now), on American psychoanalytic thought is recognized. Fairbairn has referred to the influence of a changing scientific and cultural orientation in calling for a revision of basic psychoanalytical theory at those points where

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it was determined by the atomistic scientific outlook of Helmholtz, a view that now no longer dominates physics or science in general. Furthermore, in Freud's day, the concept of the 'person' and of 'personality' had not assumed the importance in philosophical thinking that it came to do later, with far-reaching effects on all the human sciences. Culturally and conceptually, to-day is the era of human personal relationships rather than of instincts; the problem is, given innate endowment, how is that shaped by what goes on between people?

In tracing out the broadly dialectical pattern of development in psychoanalytical theory, we find some help (again, only in a broad way) in taking note of the differences between psychoanalytical thinking in different geographical areas. Balint, in 1937, referred to different emphases in London, Vienna and Budapest. We can recognize the same phenomenon on a larger scale affecting total theoretical orientation. A useful way of correlating recent developments is the following dialectical scheme, which, however, is not intended to be pressed rigidly or regarded as a strictly chronological development, but used only as a guiding idea:

I. *Thesis*. The original *European* psychobiology of Freud and his early co-workers from 1890 onwards, an 'instinct-theory' which was not modified by the later development in the 1920's of a more purely psychological ego-analysis. This may be referred to as the classic psychoanalytical teaching.

II. *Antithesis*. The rise of psychosociology in *America*, in the 'culture-pattern' and 'character-analysis' theories of writers like Karen Horney, Erich Fromm, and H. S. Sullivan, from the 1930's.

III. *Synthesis*. The elaboration in *Great Britain* of a different theoretical orientation which, while not indifferent to sociological and biological considerations, developed the concepts of the 'internal object' and the 'inner psychic world' as parallel to external objects and the outer world, and so comes to correlate the internal and the external object-relationships in which the personality is involved. This development arises out of the work of Melanie Klein and others, and is

worked out in a systematic and comprehensive way by Fairbairn. It too dates from the 1930's.

Clara Thompson, in her recent book (1952), unfortunately only deals with phases one and two and quite ignores the British contribution which is in truth an exceedingly radical and important one.

I. THESIS: THE CLASSIC FREUDIAN THEORY

In order to make clear where and why development was needed, we must consider certain aspects of the theory of psychoanalysis as laid down by Freud. Considered developmentally his work falls into two parts. The instinct theory (1890 to 1920) culminated in the monograph *Beyond the Pleasure Principle* where he outlined his final view of a dualism of instinctive equipment, libido and aggression, the life and death instincts. After that Freud produced a considerable reorientation in his thinking, with the development of ego-analysis and the scheme of psychic structure, namely the id, ego and super-ego. Hartmann, Kris & Loewenstein write:

Since a structural viewpoint was introduced into psychoanalytic thinking, hypotheses previously established must be reintegrated. The task of synchronization is larger than it might seem at first (1946, p. 12).

We have then to consider what criticisms of instinct theory in general, and of Freud's instinct theory in particular, and also what criticisms of his scheme of psychic structure, have arisen; and what is the relationship between these two parts of Freud's theory. To consider only criticisms, which is our business here, may seem an unduly negative approach to Freud's work, so we should remember that the most constructive critics themselves rest on a firm basis of Freud's discoveries, and their criticism is evidence of the vitality of his achievement.

(a) *Freud's instinct theory*

The concept of instinct was borrowed by Freud as a working concept to start with. It was already current in the biological and

general thought of his day and was much used by academic psychologists. Freud and W. McDougall made instinct the basis of their psychological theories. Broadly speaking the concept has proved of more use in animal than in human psychology. Animal behaviour is largely based on specific instincts resting on a definite neurological structure. The nest-building instinct of birds, the web-spinning instinct of spiders, the pecking instinct of the newly hatched chick, are cases in point; though as one comes higher up in the scale of complexity of animal life, intelligence becomes an increasingly obvious factor in modifying pure instinctive reaction. McDougall ultimately replaced the concept of instinct by that of 'propensity', a more vague and general term, in the case of human beings. Any simple instinct theory is now viewed with disfavour by academic psychologists, though the existence of innate motivational factors is accepted. Thouless sums up his discussion as follows:

There seems to be no reason for denying the existence of human instincts or propensities if these are defined as innate forces behind behaviour. It seems better to avoid the word 'instinct' in connection with human behaviour, since this word may lead to misunderstanding. On the other hand, it is doubtful whether the conception of human instincts or propensities is of much service in explaining differences between societies or between individuals, since it is not possible to determine how far these differences are innate and how far they are acquired. There seem to be strong reasons for rejecting the doctrine that the driving forces behind human behaviour are entirely derived from innate propensities (1951, p. 41).

Allport states his views in the following words:

The instinct theory asserts that there are... propensities operating 'prior to experience and independent of training'... In recent years it has become common to reject this somewhat extravagant portrayal of human purposes... The doctrine of drive is a rather crude biological conception... The personality itself supplies many of the forces to which it must adjust (1949, p. 119).

The psychology of personality must be a psychology of post-instinctive behaviour... Whatever the original drives or 'irritabilities' of the infant are, they become completely transformed in the course of growth into contemporaneous systems of motives (1949, pp. 194-5).

Thus the sucking reflex in the newborn infant is instinctive like the innate specific behaviour patterns of more primitive forms of life, but the 'sucking need and the sucking attitude to life' of the adult neurotic is certainly no simple instinctive phenomenon. The general innate factors in man are better described in the term of C. S. Myers as 'innate directional determining tendencies' to react in certain ways when certain types of situation call for appropriate response. In particular, it is not held that specific impulses exist prior to experience. Rather an innate tendency is a precondition of a specific impulse arising in response to a specific environmental object or situation. Thus the 'instinct' of aggression would not mean that we are permanently charged with an aggressive drive, always straining at the leash and seeking an outlet, whether there be good cause for anger and attack or not. Anger and aggression form an innate potentiality for reaction when we meet with frustration or danger.

This general position of academic psychology with respect to the theory of instinct is of great interest when we consider the views that Freud propounded. The general development of his instinct theory is well known. It passed through three stages. First, instincts of self-preservation and race preservation, of hunger and sex, were suggested, the former being regarded as ego-instincts and the latter as belonging to the primary unconscious. With the theory of narcissism, Freud recognized libidinal or sexual instincts in the ego; and he finally determined on the dualism of libido and aggression in the form of life instincts and death instincts. These libidinal and destructive drives were both innate and operated prior to experience, and were at perpetual warfare in the organism. Aggression had nothing originally to do with frustration and

operated primarily within the organism, working towards its destruction. What we know practically and clinically as aggression was the extraversion of this original self-destructive innate drive, its turning outwards against objects in the interests of self-preservation. This theory means that the basic conflict within human nature is ultimately irreducible and its final outcome in the victory of the destructive drive is only staved off for a time by compromises in which the two opposite drives coalesce, as in sadism and masochism, or else are both turned upon objects as in ambivalence, a problem which is then practically solved for the time being through keeping the two drives apart by choosing different objects for love and hate.

Freud's early paper, 'Civilized sexual morality and modern nervousness' (1908), illustrates a view of instinct from which he never really departed. The impulses of sex and aggression are dangerous innate forces which operate without regard to social necessities and moral values. The ego must defend itself against them at all costs, but is shut up to three possibilities. It can repress them and become neurotic, or express them and become criminal, or (and this is a possibility open only to the favoured few) sublimate them into socially acceptable activities that have cultural value. On this view psychotherapy is limited to (a) strengthening the ego against the force of the innate drives, and (b) persuading society to lower its cultural demands to the absolute capacity of human beings. In the paper referred to, Freud writes:

Our civilization is, generally speaking, founded on the suppression of instincts. Each individual has contributed some renunciation of his sense of dominating power, and the aggressive and vindictive tendency of his personality. From these sources the common stock of the material and ideal wealth of civilization has been accumulated (1908, p. 82).

The task of mastering such a mighty impulse as the sexual instinct is one which may well absorb all the energies of a human being. Mastery through sublimation, diverting the sexual energy

away from its sexual goal to higher cultural aims, succeeds with a minority, and with them only intermittently... of the others, most become neurotic or otherwise come to grief (1908, p. 88).

Granting the correctness of this theory of biochemically determined instinctive drives existing prior to experience and possessing a fixed and absolute quantity of energy, Freud's conclusions follow quite logically. His dilemma is that the denial of instinct is necessary for culture and civilization, whilst the gratification of instinct and the relaxation of culture is necessary for health. This pessimistic conclusion may well arouse our suspicions, which find support in the criticism of instinct theory by academic psychologists, for whom instinct has more and more fallen into the background, as a primary potentiality for reaction which is shaped to specific modes of behaviour only by post-natal experience. This in fact was what Freud himself came to understand when he undertook his analysis of the ego, and created his theory of psychic structure, which allows for motivational forces which were not originally present in the psyche but come into existence as a result of internalizing external, parental and social, demands. But Freud did not recognize that this necessitated a revision of his original theory of instincts.

It is, of course, true that human beings present all the appearance of being possessed of dangerous and socially recalcitrant sexual and aggressive drives, but psychoanalytic study of these phenomena has itself made it clear that they are not in that form innate and essentially unmodifiable impulses. They are, in fact, neurotic phenomena, and when the innate potentialities of human beings operate in a mature and mentally healthy person they do not take this form of dangerous anti-social drives calling for mastery by repression or sublimation. It seems that Freud early confused 'instinctual' and 'neurotic' and created a theory of instincts which implies that our fundamental drive to activity, our 'life-force', is simply the energy of physical appetite and not a function of the 'total personality'.

Sexual difficulties are now seen as due not to the constitutional strength of the sexual instinct, but to the developmental immaturity of the whole personality, and more specifically to the internal and unconscious perpetuation in the psyche of the frustrating object-relationships of early life. The same applies to compulsive aggressive tendencies. *Neurotic suffering is not due to the repression of strong and healthy constitutional sexuality and aggression, but to the struggle to master infantile and immature impulses which are continually evoked in the unconscious inner world.* The important issue at stake, theoretically, is that if Freud's instinct theory were correct, the problem could only be solved by repression or cultural regression, except for a favoured minority. The diagnosis now available at least opens the possibility of solving the problem by promoting conditions that aid the emotional maturing of the individual without necessitating the sacrifice of cultural aims.

Freud's theory involves a negative theory of culture, as existing to enforce and reconcile men to renunciation of instincts. His view of culture arose from his theory that aggressive and libidinal impulses are essentially non-altruistic and represent a basic biologically determined instinctive endowment, which lies behind even their aggravated and frustrated forms, and which cannot be changed. Thus human nature is innately unfitted for, and hostile to, good personal relationships. It is only fitted for the exploitation of objects in the interests of biological, appetitive needs. Freud's picture of the 'state of nature' in *The Future of an Illusion* (1927, p. 25) outdoes Hobbes's picture of it as 'nasty, brutish and short'. There is no room here for such a conception as that of the realization of a man's true nature and individuality in development towards maturity.

It will be convenient to include at this point the criticism of Freud's theory of instinct put forward by the American 'culture-pattern' school, and, from a different point of view, by Fairbairn, leaving their positive contributions for later consideration. Clara Thompson

has summarized the criticisms made by such writers as Karen Horney, Erich Fromm and H. S. Sullivan in her book. She writes:

The emphasis on constitution turned attention away from what we would now call the cultural orientation....The impression grew on Freud that the patient fell ill primarily because of the strength of his own constitutional drives....It tended to close his mind to the significance of environment and led him to pay too little attention to the role of the emotional problems of parents in contributing to the difficulties of their children....Freud did not envision people in terms of developing powers and total personalities. He thought of them much more mechanistically—as victims of the search for the release of tension (1952, pp. 9-10, 42-3).

These writers maintain that the neurotic sexuality of oral, anal and genital kinds, and the manner of sexual development through oral, anal and genital phases, which Freud took to be a basic biological phenomenon, is highly culturally conditioned. Customs of breast-feeding, and of cleanliness training, and tolerance or intolerance of the child's early masturbatory activities, are the main determining factors in the patterning of sexuality around these functions. Similarly, the degree of intensity of the Oedipus conflict is determined by the extent to which neurotic parents force this situation upon the child, so that it is not to be regarded as mainly an inevitable biological phenomenon. Differing cultural patterns play a large part in determining the kind of pressures parents put upon their children, often leading to the gross inhibition of any kind of natural and spontaneous behaviour on the part of the child. Karen Horney regarded what Freud called instincts as largely 'neurotic personality trends'.

Freud's theory of a death instinct has met with much criticism. Otto Fenichel cites a number of objections of which the chief are as follows:

There is no proof that (aggressive drives) always and necessarily came into being by a turning outwards of more primary self-destructive drives....It seems rather as if aggressiveness were

originally... a mode in which instinctual aims are sometimes striven for, in response to frustrations or even spontaneously... A death instinct would not be compatible with the approved biological concept of instinct. The clinical facts of self-destruction likewise do not necessitate the assumption of a genuine self-destructive instinct (1945, p. 60).

Thompson writes:

(Freud) assumes that suicide and destructiveness towards others are products of the death instinct. More recent observations by others, however, suggest that they have much more to do with the feeling of being thwarted in living... Aggression normally appears in response to frustration. It represents a distortion of the attempt to master life, but cruelty for its own sake probably only occurs as a result of having experienced it from others. Far from being a product of the death instinct, it is an expression of the organism's attempt to live (1952, pp. 52-4).

Fairbairn's criticism of Freud's instinct theory is based on fundamental theoretical considerations which go beyond clinical observation. It is bound up with the problem of psychic structure and the question of general cultural orientation already mentioned. Fairbairn writes:

If 'impulses' cannot be considered apart from objects, whether external or internal, it is equally impossible to consider them apart from ego structures... 'Impulses' are but the dynamic aspects of endopsychic structures, and cannot be said to exist in the absence of such structures... Ultimately, 'impulses' must be simply regarded as constituting the forms of activity in which the life of ego structures consists (1952, p. 88).

Thus Fairbairn discards Freud's divorce of energy and structure, involved in differentiating an id and an ego. For Freud the id is the source of instinctive energies, id-impulses, while the ego is the organized structure of controls. He favours instead a theory of 'dynamic structure' in which energy and structure are not treated as separate factors, but 'instincts' are the 'forms of energy' and 'impulses' are the 'forms of activity' which constitute the dynamic of endopsychic struc-

tures'. This theory avoids the now outmoded 'atomistic' type of theory. He writes:

Freud's divorce of energy from structure represents a limitation imposed upon his thought by the general scientific atmosphere of his day. The scientific atmosphere of Freud's day was largely dominated by the Helmholtzian conception that the universe consisted in a conglomeration of inert, immutable and indivisible particles to which motion was imparted by a fixed quantity of energy separate from these particles. However, modern atomic physics has changed all that... So far as psychoanalysis is concerned, one of the unfortunate results of the divorce of energy from structure is that, in its dynamic aspects, psychoanalytical theory has been unduly permeated by conceptions of hypothetical 'impulses' and 'instincts' which bombard passive structures... From the standpoint of dynamic structure, 'instinct' is *not the stimulus* to psychic activity, but itself consists in characteristic activity on the part of a psychical structure. Similarly, 'impulse' is not, so to speak, a kick in the pants administered out of the blue to a surprised, and perhaps somewhat pained, ego, but a psychical structure in action—a psychical structure doing something to something or somebody (1952, p. 150).

Thus Fairbairn envisages:

A replacement of the outmoded impulse psychology, which, once adopted, Freud had never seen fit to abandon, by a new psychology of dynamic structure,

in which (and this conforms with the views of academic psychology on the question) instincts as mental entities are discarded and

the instinctive endowment of mankind only assumes the form of general trends which require experience to enable them to acquire a more differentiated pattern (1952, p. 157).

Nor are the structural units to be hypothesized either. He refers to:

The impossibility of regarding these functioning structural units as *mental entities*. After all, the general tendency of modern science is to throw suspicion upon entities; and it was under the influence of this tendency that the old 'faculty psychology' perished. Perhaps the arrangement of mental phenomena into functioning structural

groups is the most that can be attempted by psychological science. At any rate, it would appear contrary to the spirit of modern science to confer the status of entity upon 'instincts'; and in the light of modern knowledge an instinct seems best regarded as a characteristic dynamic pattern of behaviour (1952, p. 218).

Fairbairn has undoubtedly raised, in this discussion of the concept of 'instinct', the fundamental issue for psychoanalytical theory. The publication of E. Jones's *Sigmund Freud: Life and Work*, vol. I, and of Freud's letters to Fleiss (1954) has confirmed in the clearest possible way the tremendous extent to which Freud's thinking was dominated by the scientific outlook of his time, and in particular by the concepts of Helmholtzian physical and physiological atomistic views. It is established that Freud to the end regarded psychological, and psychoanalytical, theories as a stop-gap mode of thinking to be used consistently and exhaustively, but only until such time as the phenomena can be explained in physical terms. In fact the theorizing of Freud is to a large extent the transference into the psychological sphere of the broad pattern of 'thought-forms' characteristic of physical science. It is this, in the end, that makes necessary the radical re-thinking of the theories by means of which he explained the far-reaching discoveries he made concerning mental functioning. Freud's thought-forms are revealed in such terms as 'mental apparatus', 'defence mechanism', the impersonality of the biological id, etc., and this type of theory needs to be recast into terms suitable to the study of personal phenomena. M. Brierley's consideration of psychoanalysis from the point of view of personology points this way, though her treatment of it as process theory perpetuates the earlier point of view of reducing personal to impersonal phenomena.

(b) *Freud's ego-psychology and structural concepts*

In his early studies of hysteria Freud was naturally preoccupied with dissociation phenomena, and therefore with the differentiation

of the psyche into conscious and unconscious, and with the reformulation of dissociation into dynamic repression. He then became concerned with the study of what was repressed and created his instinct and libido theory. His later study of depression and of obsessional neurosis turned his attention to the factor producing repression. This he regarded as a moral factor, conscience reinforcing the controlling ego, and so he came to plan out the organizational pattern of the total psyche in structural terms. The result looks very much like a scientific description of the traditional tripartite division of personality into body, mind and spirit; i.e. instincts, the self of everyday life, and conscience; the id, ego and super-ego. Nevertheless, this was a tremendously significant theoretical advance. Psychic conflict had hitherto been understood in terms of the controlling ego mastering instinct-derivatives, isolated impulses, in deference to outer reality. Now the problem of conflict between the ego and the super-ego arises and this is a problem of conflict between psychic structures as theoretical wholes within the larger whole of the total psyche. This ought naturally to have led to a reformulation of the earlier view of repression of isolated impulses, by way of a structural definition of that aspect of personality represented by the basic, natural, instinctive needs. Instead the two different views were allowed to continue side by side. As Hartmann, Kris & Loewenstein say:

Functions of the id center around the basic needs of man...rooted in instinctual drives....Functions of the ego center around the relation to reality...we speak of the ego as of a specific organ of adjustment....Functions of the super-ego center around moral demands. Self-criticism...self-punishment and the formation of ideals (1946, p. 15).

This Freudian scheme of psychic structure laid the foundations for all subsequent study of the internal dynamics of personality in terms of a properly psychological and psychodynamic theory, even though it does not prove immune from criticism, and, as Fairbairn puts it, 'a developing psychology of the ego came

to be superimposed upon an already established psychology of instinct' (1952, p. 59). Critical examination of this scheme has mainly come from orthodox Freudians and from Fairbairn. The culture-pattern writers have little to say about this problem.

The Id and the Ego

It is at once apparent that 'id' is a biological concept, while 'ego' and 'super-ego' are psychological concepts, so that the scheme rests on mixed principles of classification. The id is natural energy, which is conceived as separate from ego and super-ego which are structural developments. Alexander writes:

The notion of the id, as originally defined, is problematical. Strictly speaking, a completely unorganized, inherited mass of instinctual urges is not found even at birth. Learning starts immediately at birth, and it is therefore difficult to see at what period the sharp distinction between an unorganized id and an organized ego obtains (1949, p. 83).

Hartmann, Kris & Loewenstein deal with this problem:

Freud speaks of a gradual differentiation of the ego from the id; and as an end result of this process of differentiation the ego, as a highly structured organization, is opposed to the id. Freud's formulation has obvious disadvantages. It implies that the infant's equipment at birth is part of the id. It seems, however, that the innate apparatus and reflexes cannot all be part of the id, in the sense generally accepted in psychoanalysis. We suggest a different assumption; namely, that of an undifferentiated phase during which both the id and the ego are formed.... To the degree to which differentiation takes place man is equipped with a special organ of adaptation, i.e. with the ego.... The differentiation accounts for the nature of the instinctual drives of man, sharply distinguished as they are from animal instincts.... Many manifestations of the id are farther removed from reality than any comparable behaviour of animals (1946, p. 19).

Thus we have the id and ego as parallel differentiations within the primary and at first undifferentiated total psychic self, while the

id is no longer simply instinct such as is found in animals. They further describe the differentiation of ego and id as brought about by the infant's mixed experience of part deprivation and part gratification. The ego is evidently the primary self in so far as it adjusts itself to reality by reconciling itself to deprivation or postponement of satisfaction, while the id is plainly that same primary self in so far as it goes on demanding gratification. *All justification for the continued use of the impersonal term 'id' has thus gone.* We must anticipate by observing that so far apparently only Fairbairn has recognized this and discarded the unsatisfactory term 'id' in favour of the term 'libidinal ego', the primary natural self with its libidinal needs. It is in no sense a mere impersonal biological energy. In Freud's sense the id is not a structure properly speaking, and what it represents can only be included in a structural scheme if its proper 'ego' or 'personal self' quality is recognized.

The ego

The Freudian ego is that part of the primary self which is modified to conform to the demands of the environment, becoming an organ of adaptation. This raises acute problems. Hartmann, Kris & Loewenstein observe that 'Freud's use of the word [ego] is ambiguous. He uses ego in reference to a psychical organization and to the whole person' (1946, p. 16). Prior to the publication of *Beyond the Pleasure Principle* (1920), psychoanalysis 'had first come to know [the ego] only as a repressive, censoring agency' (p. 69). With the development of the theory of narcissism the ego expanded into 'the true and original reservoir of libido and it is only from that reservoir that libido is extended on to objects' (p. 70). He considered further that the ego contained destructive instincts as well. Just as object-libido was the extraversion of narcissistic ego-libido, so aggression against objects was the extraversion of self-destructive ego trends. The ego had swallowed up everything and become in effect the primary, unitary total psychic self, i.e. the whole person, the primary reservoir of all

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instinctual energies, libidinal and aggressive. In *Group Psychology and the Analysis of the Ego* Freud wrote (1921) 'the ego's nucleus, which comprises the "archaic inheritance" of the human mind, is unconscious' (p. 10, footnote). This is really the concept of the primary psychic self of the undifferentiated phase of Hartmann, Kris & Loewenstein, out of which the Freudian conforming, adaptive, ego is differentiated from the natural libidinal self (the Freudian id).

With *The Ego and the Id* (1923), however, Freud explicitly repudiated that view. 'Some earlier suggestions about a "nucleus of the ego", never very definitely formulated, require to be put right, since the system Pcpt-cs (perceptual consciousness) alone can be regarded as the nucleus of the ego' (pp. 34-5, footnote 2). He here swings back to restricting the term ego to the superficial phenomenon of anxiety-motivated adaptation to outer reality, while the rest of the total self is relegated to an impersonal id. This gives us little help in dealing with the statement of one of my patients: 'I have grown up to be an outer shell of conformities and I've lost touch with any real "me" inside.' The problem may be expressed as by Karen Horney in her criticism that Freud's ego is a neurotic phenomenon. It emerges in a much more profound way in the views of Winnicott. We have already observed that Freud's scheme is clearly linked to the traditional tripartite division of body, mind and spirit, i.e. id, ego and super-ego. The equating of body and id, mind and ego is implied in Winnicott's paper, 'Mind and its relation to the psyche-soma' (1954, pp. 201-9). Thus he writes:

The mind of an individual...specializes out from the psyche-soma. The mind does not exist as an entity in the individual's scheme of things provided the individual psyche-soma or body scheme has come satisfactorily through the very early developmental stages; mind is then no more than a special case of the functioning of the psyche-soma. In the study of a developing individual the mind will often be found to be developing a *false entity*, and a false localization (p. 201).

Certain kinds of failure on the part of the mother, especially erratic behaviour, produce over-anxiety of the mental functioning. Here, in the overgrowth of the mental function reactive to erratic mothering, we see that there can develop an opposition between the mind and the psyche-soma....Clinically this can go along with...a false personal growth on a compliance basis....The psyche of the individual gets 'seduced' away into this mind from the intimate relationship which the psyche originally had with the soma. The result is a mind-psyche, which is pathological (p. 203).

The mind is located then in the head while the psyche-soma is left to reside in the body. This is, in fact, a description of Freud's view of the differentiation of the ego, as an adaptive, conforming function, from the id which it is supposed to control. But like Horney, Winnicott recognizes that this ego is a pathological, false growth. He also clearly implies that the id, or better psyche-soma, is the primary, natural self, and is by no means impersonal.

In his paper on 'Metapsychological and clinical aspects of regression within the psycho-analytical set-up' (Winnicott, 1955, pp. 16-26) the psyche-soma becomes the 'true self' and the 'mind' becomes the 'false self'. The patient may have a genuine need for a therapeutic regression in order to recover his 'true self', while the 'false self' acts meanwhile as a 'caretaker self' in its adaptation to the outer world, until the 'true self' develops and the 'false self' can be surrendered to the analyst. We are very far here from the Freudian concepts of the id and ego, but we are much nearer to psychological realities. Winnicott has not suggested that his views imply a revision of Freud's scheme of psychic structure. But clearly the psyche-soma is not an impersonal id, but the primary, natural self, the libidinal psyche, and it is the 'true self' with which the patient must recover contact. There is no place, however, in Freud's scheme for the concept of a 'true self' for it is certainly neither id nor ego in Freud's sense. Similarly, the 'mind' or 'false self' represents the adaptive, conforming aspect of the psyche as a pathological ego-growth in so far as it is

split off from and opposed to the id, psychesoma, or true primary self. This important clinical fact is not provided for in Freud's concept of the ego, and it is clear that his 'differentiation of the ego from the id' in fact conceals the fundamental splitting of the originally unitary psychic self which is the basis of all psychosis and psychoneurosis. We may observe that the terms 'true' and 'false' self are not strictly scientific terms but rather descriptive and evaluatory, and a new terminology is required to replace the id and ego of Freud's scheme.

The super-ego

Here again Freud's striking term has proved to be only the first step towards the analysis of the clinical facts. Alexander made sometimes a more and at other times a less rigid distinction between an unconscious super-ego and a conscious ego-ideal, though he did not take up Melanie Klein's distinction between persecutory and depressive anxiety. He treats the super-ego as a moral phenomenon throughout. Melanie Klein treats a very early and purely sadistic super-ego as a bad internal object. In general, orthodox writers provide no solution to the problem of the relationship between this very early sadistic internal persecutor as, properly speaking, a premoral or non-moral function, and the later developed moral conscience with which it can fuse in varying degrees. Hartmann, Kris & Loewenstein (1946) also regard the super-ego as complex, though in a somewhat different way. They adhere to Freud's view that the super-ego is a creation of the Oedipal conflict; it is a castrator and a phallic phase phenomenon. On the other hand, they regard morality as having its origins in the pre-oedipal period. The super-ego functions have 'precursors' (p. 33) which, like the super-ego, develop on the basis of identifications with parents, compliance with their demands, guilt over rebellion and the turning of aggression against the self (p. 32). Thus the super-ego appears now to be, not the origin of morality, but only one, though a very special one, of its later develop-

ments in the particular critical oedipal phase. In opposition to the general trend of the views of Alexander and Melanie Klein, their view is that the origins of the 'ego-ideal' are earlier than the formation of the cruel, sadistic, castrating super-ego. Thus of the three terms, id, ego and super-ego, the term super-ego seems in the end to be the most unsatisfactory by reason of its confusing complexity and it stands in need of closer analysis on the basis of clinical material.

II. THE 'CULTURE-PATTERN' THEORY.

A SOCIOLOGICAL ANTITHESIS

The work of Karen Horney and Erich Fromm, and in a remoter sense H. S. Sullivan, may be considered as a development of Adler's early attempt to analyse the ego in terms of inferiority feelings and compensatory power-drives, though their analysis is far more extensive and benefits from the impact of detailed cultural and sociological studies. Like Adler, they sit lightly to the Freudian concept of the deep unconscious and, for that reason, their illuminating studies of the importance of 'culture-patterns' in neurosis have more descriptive importance in extension than explanatory value in etiological depth.

(a) *Fromm and Horney*

Erich Fromm is more the analytically orientated social psychologist dealing with politics, morality and religion, and relating psychological to economic factors. He regards human problems as arising, not out of the need to satisfy instincts, but out of 'the specific kind of relatedness of the individual towards the world and to himself' (Mullahy, 1948, p. 241). The basic concept of all these writers is that our specific ways of dealing with our human environment are cultural, not instinctual, phenomena. Fromm and Horney both came finally to stress an idea that Freud made no use of, but which appears in Jung as 'individuation', and recently in Winnicott's concept of 'the true self', namely, that individuals under the stress of anxiety create a false,

socially conformist, superficial self beneath which their true nature and potentialities fail to be realized.

Karen Horney analysed conscious and pre-conscious motivations, especially the more deeply unrecognized character traits manifested by an individual in his human relationships in the present day. Unlike Reich (1934) these writers do not recognize this as the analysis of a defensive character-armour that bars the way to the deep unconscious. Thus their work is condemned to an ultimate superficiality from the point of view of psychodynamic theory. They provide a dynamic account of the conscious and preconscious ego (the Freudian 'conforming' or 'adaptive' or 'reality-ego' or Winnicott's 'false self') in its inter-personal relationships in the external 'here and now'. For Karen Horney, neurosis was constituted by compulsive, anxiety-motivated character-trends. These originate in childhood in parent-child relationships and develop under social pressures. She does not, however, explain by what means their original infantile hard core is perpetuated in the psyche throughout life. Having discarded instinct theory, she has nothing to put in its place as a means of giving a structural view of the deep unconscious as a region of psychic life outside the socially adapted ego. To use Allport's term, Horney's is a theory of the 'functional autonomy' of character-trends formed in early life. The unconscious is for her no longer the deep unconscious of fixation to childhood love-objects in Freud's sense. It is rather simply the unrecognized aspects of contemporary character-structure. She therefore underestimates how literally early object-relationships can be reproduced in transference, both in analysis and in real life.

The truth is rather that while culture-patterns and culturally imposed conflicts determine the outbreak and form of neuroses, they do not account for their deep unconscious etiology, except in so far as they play a large part in determining the kind of impact the parents make on the infant and growing child. Horney has only a functional, not a structural,

view of the unconscious in terms of the ordinary social self. She has lost touch with the clinically observed fact that early bad-object relationships become encapsulated in the unconscious, and that the neurotic constantly moulds later situations and experiences to fit the internally preserved pattern of early ones. She has allowed sociology to influence her psychopathology, but has not produced a psychopathology which could have a profound influence on sociology.

Psychotherapy, with Horney and Fromm, tends to have a moralistic flavour. It is a matter of the individual discovering his unsuspected anti-social trends so that he can correct them. But since the persistence of the character-formation of which they are a part is assumed rather than explained, it is not clear how it can be changed. The patient may well feel more guilty than ever over his lack of success. Horney rendered an important service in shifting the emphasis from instincts to human relationships, and in analysing compulsive sexual and aggressive trends as themselves neurotic needs for love and power, not natural manifestations of instincts. But these 'neurotic character-trends' still remain inexplicable solely in terms of culture patterns and external social pressures. Her emphasis on true self-realization is of extreme importance but it is weakened by the absence of a sound theory of psychic structure.

(b) *H. S. Sullivan*

Sullivan was an independent psychiatrist, influenced by psychoanalysis, but working out a theory of his own which he called 'The Theory of Interpersonal Relations'. Nevertheless, reference must be made to him, since he illustrates so clearly the reaction from a biological to a psychosocial point of view. He held that 'man is not a creature of instinct' (1947, p. 14). In the words of Clara Thompson: 'He holds that, given a biological substrate, the human is the product of interaction with other human beings, that it is out of the personal and social forces acting upon

one from the day of birth that the personality emerges' (1952, p. 211).

Unlike Horney and Fromm, and the emphasis developing in British psychoanalysis, he regards the unique individuality of the patient as outside the scope of science and so confines himself solely to what goes on between people, especially between the observed patient and the psychotherapist as a *participant observer*. The individual is under pressure from his own needs and from those significant persons around him whose approval he must have. His personality develops as a 'self-system' or a 'self-dynamism', which only includes what does not incur parental disapproval. Anxiety excludes all else. Human needs fall into two groups, 'satisfactions' and 'security'. Needs for satisfactions arise out of the biological substrate, such as needs for food, water, sleep, sex, etc., while needs for security are predominantly cultural needs. 'There is continuity between the biological and the cultural. A human being is an acculturated biological organism' (Mullahy, 1947, p. 122). It is in this process of acculturation that our *actual* impulses and drives are shaped.

Pre-existing fixed drives do not explain an interpersonal situation... (Human behaviour) is malleable, fluid, changeable to an almost incalculable degree... Interpersonal behaviour does not occur, obviously, in a mechanical, rigidly stereotyped manner... It is, then, a person-integrated-in-a-situation-with-another-person-or-persons, an inter-personal situation, which one studies... It is inaccurate to speak of a person-in-isolation-manifesting-this-or-that-tendency-or-drive (Mullahy, 1947; p. 123).

This view, that impulses are functions of object-relationship situations, is one aspect of the view that Fairbairn puts forth. How near to the British theory of 'internal objects' and 'internal object-relationships' Sullivan and his school came is clear when they point out that some of the 'persons' with whom one can have interpersonal relations are 'illusory' or 'fantastic personifications', and also that 'impulses and drives cohere in "dynamisms",

relatively enduring configurations of energy' (Mullahy, p. 123). If the 'fantastic personifications' were recognized more fundamentally as Melanie Klein's 'internal psychic objects' and as Fairbairn's 'dynamic object-structures'; and the 'dynamisms' as Fairbairn's 'ego-structures', then Sullivan would have transcended the 'culture-pattern theory'. But he proceeded no further on that line, and gives us instead a study of the process of acculturation of the 'self-dynamism' or conscious ego only. Perhaps because his interest in schizophrenia did not force on him problems of conscience and guilt as distinct from anxiety, he provides no theory of psychic structure beyond the 'self-dynamism' as an anxiety-product, which also gives us no clue to the problem of the realization of the true or natural self. 'The self may be said to be made up of reflected appraisals' (Sullivan, 1947, p. 10). Thus, as Horney said of the Freudian ego, it is a neurotic phenomenon and not a healthy development.

Sullivan's theory of the 'self-dynamism', Horney's 'idealized image of the self', and Fromm's theory of 'automaton conformity', all in different ways constitute a detailed study of the results of family, social and cultural pressure on ego development, and serve as an investigation into Freud's 'reality-ego', to the neglect, however, of the Freudian deep unconscious against which it is to so great an extent a defensive barrier.

III. BRITISH DEVELOPMENTS. INTERNAL OBJECTS AND THE INNER WORLD. SYNTHESIS

The sociological reaction of the 'culture-pattern' school served to bring human relations rather than instincts to the forefront as the vital determining factors in psychological development. However, their neglect of the unconscious confined them to the study of the ordinary ego of everyday life. The great achievement of the British psychoanalysts may be said to consist in carrying the concept of object-relationships into the investigation

of the total psyche, making possible an account of the 'unconscious' parts of the psyche as well in terms of object-relationships.

(a) *Melanie Klein*

The all-important first step was taken when Melanie Klein developed Freud's concept of the super-ego into a thorough-going investigation of all the ways in which infants internalize their emotionally significant (primarily parental) objects, good and bad. Freud created the concept of an internal psychic object without specifically using that term, when he represented conscience as functioning in the form of a separate ego, a super-ego, over against the ego and described it as a mentally internalized image of parents in their disciplinarian, authoritarian, moral and ideal aspect. From the point of view of the ego, however, the super-ego is not an ego but an object in the first place, an internal object to which the ego is tied in varying relationships of fear, resentment, submission, obedience, anxious admiration, love and longing for approval. The ego's identification with this internal object creates the ego-ideal and this obscured the primary 'object' aspect of the super-ego. But Klein discovered other internal psychic objects corresponding to other aspects of parents; some of these, of very early origin, were part-objects, a breast, a penis, often symbolized in dreams as an animal of frightening aspect; others were whole objects dating from a time when the infant became able to perceive people in increasingly complete ways. The earlier the formation of these internal objects occurred, the more they were apt to be cruel persecutors, sadistic precursors of the later moral 'super-ego'. When this inner world of mental 'objects' is emotionally activated it may break into consciousness as phantasy or dream and we can then witness its powerful psychic reality.

Melanie Klein developed a valuable distinction between persecutory and depressive anxiety, the former arising as a result of internal attack by bad objects, the latter being due to phantasied internal loss of good objects.

She came thus to view the unconscious as an *inner world*, in which complex relationships of the ego with objects are being actively lived, a psychic world in which the patient lives a life bound to the past, wherein much of his emotional experience is out of touch with the present-day reality, a mental world in which the past remains alive as a psychic present. All human beings, therefore, live in two worlds at once, an inner psychic world representing past experience and for the most part repressed and unconscious, and the outer material world of the present day which is dealt with in consciousness. Evidently our life in both can only be understood in terms of object-relationships, so that it is possible to explain our psychic life in completely *personal* terms throughout. Melanie Klein did not proceed to this revision of Freud's psychodynamic theory. Yet her work points in this direction, since it carries object-relationships first of all back into earliest infancy, so casting doubt on the Freudian primary autoerotic, objectless stage, and presenting the infant as a whole true self from the start; and in the second place it carries object-relationships down into the unconscious, making possible a structural view of the unconscious, which is a properly psychological one. If Melanie Klein had gone beyond the description of internalized object-relations in the unconscious in terms of phantasy, and had represented the phantasies as the activities of psychic structures, she would have been compelled to embark on an extensive rethinking of theory. Instead, phantasies are simply taken as representatives of instincts (Isaacs, 1948). Thus her endopsychic discoveries are only added on to the pre-existing psychobiology, including her acceptance of the death instinct, and fitted to the orthodox 'id, ego, super-ego' analysis of structure. Nevertheless, it is her work that has made possible a consistently *psychodynamic* theory of human development. Her work has stood the test of much adverse criticism, most of which has been about terminology (Bibring, Glover) and has not shaken her basic clinical findings.

These appear to the present writer to

constitute the outstanding turning-point in later psychoanalytical development since they give us the kind of approach and concepts which alone make possible a genuine synthesis of the 'internal depth psychology' of Freud and the 'external human relations psychology' of the sociologically orientated writers. Here we see how ego and object mutually interpenetrate one another in human experience, and how the environment enters into the constitution of the psychic individual even while he himself is acting upon and moulding the environment. Ego and object are mutually constitutive. This is what Sullivan means by the integration of an interpersonal situation, but he did not carry this as deep into the analysis of psychic life as the work of Klein does. In popular terms, the world and the soul are linked in indissoluble unity so that we must understand both or neither. All one-sided approaches are rendered null and void.

A further highly important aspect of her work is her detailed investigation of the enormous part played by aggression, infantile sadism, in the early development of the personality. Though she accepts the speculative idea of a death instinct, she really replaces it by an exhaustive clinical analysis of aggression in terms of projection, introjection, the formation of internal bad objects, and the creation of persecutory and depressive anxiety. Her work, not appreciated in America, and not yet adequately appreciated by all British analysts, has increasing influence beyond the Kleinian school in the narrower sense. It is marked in the work of Winnicott already quoted. The work of Balint, while not specifically Kleinian, is closely sympathetic, and brings the Ferenczi tradition out into the open and into contact with recent developments. A primary emphasis on object-relations, and especially on the influence of parents in shaping the psychogenesis of the child's personality, was always central with Ferenczi, carrying with it an emphasis on an active analyst-patient relationship in psychotherapy that went beyond the classic conception of the impersonal analyst as mainly a projection-

screen for transference phantasies and an interpreter of them.

(b) *W. R. D. Fairbairn*

Fairbairn has made the work of Melanie Klein on 'internal objects' and 'internal object-relations', the basis of a thorough re-thinking of psychodynamic theory. This has already been outlined so far as it concerns the change of emphasis from instincts to the priority of object-relations as the determining factors in development; and the adoption of a theory of dynamic structure. He defines psychology as a 'study of the relationships of the individual to his objects, whilst, in similar terms, psychopathology may be said to resolve itself more specifically into a study of the relationships of the ego to its internalized objects' (1952, p. 60). We shall conclude, therefore, with a mention of Fairbairn's theory of endopsychic structure. With his work the term *endopsychic structure* becomes for the first time fully appropriate. The theory is based on the object-relations principle throughout. He regards libidinal needs not as a search for the pleasure of psychic and physical detensioning (a deteriorated form of behaviour arising out of despair of the possibility of good object-relationships), but as a quest for the necessary and intrinsic satisfactions of a good relationship with a satisfying personal object. When that need is not met, aggression arises as a reaction to libidinal frustration and deprivation. Aggression is thus secondary to libidinal needs, but is also fundamental to the creation of psychopathological states.

'The pristine personality of the child consists of a unitary dynamic ego' (1955, p. 107) and, in proportion as the child encounters satisfying object-relationships from the start, i.e. good mothering, so that he is loved as a real person in his own right, then good and satisfactory ego development results. In so far as he encounters unsatisfying object-relationships his pristine psychic wholeness and integrity is lost. Melanie Klein holds that the infant inevitably internalizes his objects because he is oral, as if mental internalization

were the counterpart of eating or taking in. Fairbairn holds that there is no motive for internalizing a satisfying object; it is simply enjoyed and good ego development results. The infant in the pre-ambivalent stage mentally internalizes the unsatisfying object in an effort to solve the problem it presents, and therewith structural differentiation in the ego begins: i.e. the ego becomes functionally and structurally split. This is the ultimate cause of all psychopathological phenomena since the ego becomes divided against itself.

Ambivalence arises with the internalization of the unsatisfying object. Since the object is not wholly bad, the infant feels both love and hate towards it, and 'splitting' develops to deal with this intolerable situation. The object has an exciting aspect and a rejecting aspect, both of which are emotionally bad to the child, and these are split off as separate internal objects and repressed. The tolerable remainder then appears as an *ideal* object, i.e. it is not now identical with the *real* object since it has no upsetting aspects and appears as perfect or in no way emotionally disturbing.

As a result of this splitting of the object, the ego is split functionally and structurally, because of persisting cathexis of three different types of object. The *libidinally exciting* but unsatisfying object arouses and maintains in the infant a state of unrelieved need and craving. This intolerable aspect of experience is repressed in the form of an internal bad-object relationship between an intensely needy and never satisfied *libidinal ego* and an intensely stimulating but unsatisfying *exciting object*. This level of sheer libidinal deprivation gives rise to schizoid phenomena, for the infant becomes afraid of his own violently hungry love needs, becomes afraid to love lest he should devour and destroy his needed love-objects, and so cuts himself off from object-relationships in any vital emotional sense. Melanie Klein has recognized the importance of Fairbairn's work on schizoid states (1952, pp. 198 and 293 ff).

The *libidinally rejecting* object, whether passively rejective, indifferent, neglectful, or

actively rejective, angry, aggressive, arouses fear and anger in the child. This intolerable aspect of experience is repressed in the form of an internal bad-object relationship between a *rejecting object* which presents itself as a persecutor, and an ego that escapes persecution by abandoning the position of libidinal need and demand, and finding safety in identification with the rejecting object. The rejecting object becomes endowed through this identification with the infant's own anger and aggression, and develops into an internal persecutor of fantastic sadism, while the ego that is identified with it becomes itself increasingly sadistic, a vicious circle of mounting aggression all of which is directed against the libidinal ego and the exciting object. Fairbairn at first called this sadistic ego the 'internal saboteur' since it operates within the personality as an active opponent and inhibitor of all libidinal needs and strivings. He now, however, calls this the *anti-libidinal ego* a more exact scientific term which covers all the phenomena of the turning of aggression against the self. Here arise depressive phenomena.

With the repression of the 'libidinal ego-exciting object' and the 'anti-libidinal ego-rejecting object', aspects of experience, a consciously functioning ego is left, the *central ego* striving to please, appease, obey, conform to and love the external real object which is cathected, however unrealistically, in terms of the *ideal object*, the tolerable remainder of the internalized object after its exciting and rejective aspects have been subtracted. At this level moral functions develop in course of time as the ideal object becomes the basis of the child's ego-ideal, a central ego possession. Thus ego and objects are split together in a tripartite way and a complete endopsychic situation is set up, describable only in object-relationship terms, the pattern of which is fundamental for all human beings, however varied the individual differences comprised within it may be. The central ego functions consciously while its two basic emotional functions, libidinal and aggressive, are considerably lost to it by

the splitting off and repressing of two subsidiary egos, the libidinal ego and the anti-libidinal ego, in an infantile state. This central ego, being itself only a partial and therefore inadequate ego, seeks to retain external good-object relations by idealizing its objects, ignoring their libidinally exciting aspect, and avoiding arousing their rejective aspect, both of which are dealt with at the unconscious level as internalized bad objects, the exciting object and the rejecting object.

This threefold analysis of endopsychic structure appears to meet all the difficulties examined earlier that have been raised concerning the 'id, ego, super-ego' scheme. The *id* can now be viewed personally as the primary libidinal ego. The ego of Freud, a conforming and adaptive ego, is an aspect of the more important concept of the central ego of our conscious living. The complexity of the super-ego can now be resolved into its components. Fairbairn seeks to meet the difficulty appreciated by Alexander, when he pointed out that the super-ego operates on two different levels, the primitive sadistic super-ego and the moral conscience. The primitive sadistic super-ego is the alliance between the rejecting object and the anti-libidinal ego, so that clinically we find patients oscillating between feeling menaced by some persecuting figure and feeling that they persecute themselves. This level of experience is pre-moral or amoral and merely persecutory. The rejecting object and the anti-libidinal ego maintain a constant attack on the libidinal ego and the exciting object, thus forming the hard core of the anti-libidinal factor in the personality, and supporting 'the [direct] repression exercised against it [the libidinal ego] by the central ego, which it thus seems appropriate to describe as a process of *indirect repression*' (1955, p. 108). This indirect repression is responsible for Melanie Klein's 'persecutory anxiety'.

What develops into the moral component of the super-ego is the ideal object. In neurosis, this seeks to control and dominate the central ego, thus supporting its repression of

both the libidinal ego and the anti-libidinal ego. The central ego, being in fact the remainder of the original primary self, is, of course, the agent of primary repression by aggressive rejection of the internal exciting object and the internal rejecting object in the first place, a procedure which involved it in the loss by repression of the parts of itself cathecting those internal objects. The central ego, however, remains also in touch with the outer world and is open to continuing educative influences, which is not true of the repressed parts of the personality. This leads to the evolution of two different types of guilt and morality, the one morbid and the other increasingly realistic and mature. Under the attack of the anti-libidinal ego, the libidinal ego develops not only *persecutory anxiety* but, at a slightly later stage, *persecutory guilt*, which is Melanie Klein's 'depressive anxiety'. The morbid guilt of depression is so persecutory in nature that it is clear that the anti-libidinal ego plays the dominant part in its creation. It contains a large amount of what Freud called 'borrowed guilt' (1949, p. 72), and it leads to the development of a pathological morality of an ultra-authoritarian kind: i.e. in Christian terms, a harsh Calvinistic morality of law rather than love. If the central ego has to do with parents who are, even as idealized outer figures, too intolerant of the child's libido and aggression, the 'super-ego conscience' will develop little beyond the level of the sadistic, persecuting, rejecting object and anti-libidinal ego.

We may comment at this point on the familiar psychoanalytical idea that 'super-ego morality' needs to be replaced by a rational morality. This is better expressed as the replacement of persecutory morality by the morality of love. 'Super-ego morality' is psychopathological since it rests on splitting phenomena. It involves, as Fairbairn's analysis shows, both the sadistic persecution of the libidinal ego by the anti-libidinal ego, and an attempt to control the psyche as a whole by a central ego morality based on the ideal object and so likely to be perfectionist and unrealistic.

But since the central ego is the part of the ego which retains the capacity to deal with outer reality it will do this in ever more realistic ways as infantile ego splitting is outgrown. 'The super-ego conscience' involves the attack of one ego upon another. A mature conscience is a function of genuine *self*-judgement on the part of the central ego by virtue of its possession of an ego ideal which becomes progressively more realistic as re-integration proceeds and as external objects are perceived in their own true nature and not in the light of the projection of an internal ideal object.

Fairbairn's scheme has the advantage of being consistently psychological throughout, of answering to clinically observed facts more closely than the original scheme, and of clarifying the two outstanding anomalies in human nature; i.e. the co-existence of a primitive non- or pre-moral level of psychic life with the civilized moral level on the one hand, and on the other the fact that the individual functions as a self-frustrating entity by reason of his being radically divided between libidinal and anti-libidinal factors in his organization. The bare bones of conceptual analysis come to life when clothed with the flesh and blood of clinical facts. A male patient reports that his relationship with his wife is one of constant rows and antagonism, while he finds another woman at work sexually exciting; but neither of them are his ideal woman for a wife. His ideal wife is clearly described in terms of the

internal ideal object who is perfectly supporting but in no way emotionally disturbing. His actual wife is the rejecting object and the other woman is the exciting object. Hereby he reveals the tripartite split in his own ego setting up needs for three quite different types of women. Fairbairn writes:

The conception of this basic endopsychic situation provides an alternative, couched in terms of personal relationships and dynamic structure, to Freud's description of the psyche in terms of id, ego and super-ego, based as this is upon a Helmholtzian divorce of energy from structure no longer accepted in physics, and combined as it is, albeit at the expense of no little inconsistency, with a non-personal psychology conceived in terms of biological instincts and erotogenic zones (1955, p. 109).

In conclusion, the most urgent task now confronting psychoanalysis would seem to be that of re-investigating the whole problem of psychotherapy in terms of 'object-relations theory', particularly with a view to the question of the part played by the relationship of analyst and patient as the really therapeutic factor. This is a larger question than that of transference, and the work of Melanie Klein, Fairbairn, Winnicott, and the Ferenczi tradition all bear together on this, the ultimate, practical problem, to which Sullivan's view of the therapist as a 'participant observer' is also relevant.

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CONTRIBUTIONS TO THE THEORY OF PLAY*

BY ELIZABETH KARDOS AND ANDREW PETO†

(1) *Play and splitting of the ego*

The outstanding features of play in different age groups are: motor activity during the first two years, manifest phantasy in the oedipal phase, whilst observance of rules is dominant in the later stages.

The most archaic component of play is motility, and it is the undisputable common link between human and animal play. Let us discuss first the functional role of phantasy, its dynamic sources and its assumed aim.

Stephen was six years old, when he came to analysis because of anxiety states which had begun in his second year. He was a premature baby, and had always been frail, undersized and ailing. His parents were neurotic, over-anxious people, and his father expected him to fulfil the father's own infantile yearnings and phantasies, i.e. that the boy should be

a hero, extremely clever, as well as the most daring boy among his little friends.

This boy's permanent phantasy series hinged on one figure in the phantasy, an imposter called by him Eugene, who mostly posed as a colonel in uniform. Eugene was a thief, stole mainly cars, but also diamonds and knives. He was a mixture of criminal and naughty boy. He destroyed and impoverished people and his main hobby was riding on tram-buffers. Gradually Eugene was joined by another larrikin, Andrew, then by a third one Abel, and by others, until the gang consisted of eight members. Their activities extended over the whole world, Brazil, France, Alomary (an imaginary country), etc. Soon submission and passive tendencies were personified by those who suffered from the gang's exploits. They (the count, the garage-owner, etc.) came to report their injuries and losses.

The play-figures (Eugene, etc.) were identifications resulting from the usual projection-introjection processes. They represented the introjected dangerous, imago of the father as well as the boy's defiant ego trends. The injured figures represented the same images in states of destruction, retaliation and rehabilitation.

His play was determined by two main motives: the castration he underwent, and the castration inflicted on the parent figures. Every figure represented—in changing proportions—both motives.

The child's reaction to the analyst's various approaches indicated, on a superficial level, the functional role of the play. If the interpretations were directed to him ('you are afraid of trams because you think they bring death') he looked at the analyst in astonishment and without understanding. His face, however, lit up if the interpretation was directed to the play-figure, e.g. 'Eugene is

* A paper read at the Annual Conference of the Australian Society of Psycho-Analysts, 11–15 January 1955, held in Adelaide. Dr E. Kardos's paper on 'A psychoanalytical theory of play' was received by the Hungarian Psycho-analytical Society as the Ferenczi Memorial Lecture for 1944. The German invasion of Hungary and its disastrous consequences disrupted such scientific activity and my wife, Dr Kardos, was killed by Hungarian Nazis during the siege of Budapest in January 1945. Her manuscript survived and was read as the first post-war Ferenczi Memorial Lecture in 1946. The present paper is based on the observations and some assumptions in her original paper, my contributions consisting of an attempt to put the theory on a broader clinical basis, and to carry the metapsychological analysis further. My aim is to apply my theory of depersonalization to the function of play so as to gain a deeper insight into this basic human activity.

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afraid of trams because he thinks they bring death'. Only by working through was the child able to associate his self and Eugene. It was obvious that Eugene and his accomplices were split-off parts of the boy's personality. This splitting represented a complicated defence. Dangerous imagos and destructive impulses underwent a series of repressions. In the course of these repressions the anxiety-arousing parts of the ego became alienated, 'split-off' from the conscious ego. They continued their existence in the unconscious realm of the ego. Their pressure caused anxiety which instigated this child to 'play out' his conflicts. This disintegration of the whole in the form of splitting served the purpose of alienating from his ego those parts that were anxiety-ridden. The feeling is not that of 'I feel this emotion' but 'This something—alien to me—operates within me'. This tendency finds expression in the adult language as well. We talk about emotions, desires that torment us, drive us, etc.

This splitting during play created the ambiguous situation that the play-figure that steals and kills is *not* the child himself, yet at the same time it is the child himself. Thus through the splitting the dangerous ego-contents become alien. The conscious ego is, to some extent, relieved from the pressure of the superego, from guilt feelings, since forbidden activities and drives operate during play as strange forces; the child does not feel responsibility for them. Another aspect of this situation is that impulses can come to the fore without creating anxiety within the ego because they are treated by the ego as activities of strange persons. Finally, the third source of threat for the developing ego of the child, that of external reality, also comes under control. Play populates the world with people who are identical with the split-off parts of the ego. This enables the ego to cope with them more efficiently than in a reality which confronts him with unexpected traumatic situations. Naturally, we may observe at any stage of play that even this controlled play-reality becomes too dangerous; overwhelming

anxiety develops, and the play must be interrupted.

As a rule the average child is able to indulge in play and stay relatively free from the three-fold pressure of the superego, the id, and that of external reality. The function of splitting enables him at the same time to keep in contact with the above-mentioned three forces (superego, id, reality). He continually adapts himself to them, and integrates them into his developing personality.

The oscillation between the integrated and split-off parts is clearly demonstrated by the following example. Andrew, 6 years old, came under analysis because of his fears. He told the analyst in one of the early sessions that he was afraid of the devil. He could not give any reasons, though he was anxious to help the analyst. He said that a boy had frightened him. It took him many weeks before he was able to start playing. Then he immediately started to play the role of the devil. In this way he was able to reveal what his mother had said: 'The devil take you'. It was known to the analyst that it was the father who dominated the home and the mother's helpless disciplinary formula was 'I will tell your daddy on you'. He related in the next session that when daddy had come into his room at night he had thought it was the devil.

The play activity of the split-off disintegrated parts enabled the ego to accept the content of these parts, in other words the devil-play made it possible for this boy to talk about his fears in the language of the integrated ego. The split-off parts temporarily became parts of the conscious integrated ego during the oscillatory process of play.

(2) *Play and the primary processes*

In play the cathexes shift easily and play is characterized by hallucinations and disturbances of the body scheme. The boundaries of self and non-self disappear. In this state of archaic-magic confluence we find all the characteristics of the primary processes—displacement, condensation and symbolism

prevail. One of the most impressive features of play is the rapid change in objects, phantasies and scenery and the displacing, one by another, of social values, moral standards and pleasures.

Buytendijk (1934) considers 'aimlessness' as the most important youthful feature in play. It is the operation of the primary processes which evokes this impression in the adult non-analytical observer.

The flooding of the ego with the primary processes causes another basic feature of play, namely timelessness.

In the analysis of children it is in most cases quite impossible to get near the day's residues, i.e. to the experiences of contemporary reality. The conscious ego suffers them and then splits them off. They might, and often are, played out immediately in split-off contents and activities. However, they have lost their original contact with consciousness. We never obtain from the child confirmation that a given event happened yesterday or a year ago.

The dynamics of the primary processes dominate the function of the play object as well. Whatever the origin of the child's actual conflicts, he projects his phantasies on to some object, be it a real or imaginary one. Through play this object operates under the sway of the primary processes. It shows the characteristic oscillation that marks everything connected with play. Though it is a real object, it represents internal objects as well. A toy-soldier may represent the bad as well as the good father in the course of five minutes play. The play object is subjected to the fluctuations of the body scheme. The stuffing of a doll may be felt as identical with the child's inside or with parts of the parental body. A single toy-car may symbolize different phases of the primal scene, it may be considered as the condensation of complicated and confused instinctual demands and fears.

The play object is dealt with in positive and negative hallucinations. A few marbles may suffice to create a fairy-land, and destructive phantasies may make any object disappear from within the child's magic orbit.

(3) *Some aspects of the transference*

I would like to discuss some aspects of the transference situation during psychoanalytical treatment. They may help us to gain further insight into the function of play. I think that I am in accord with Freud's views about the dynamics of the transference neurosis if I assume that every adequate interpretation has a traumatic effect upon the patient. (The term 'transference neurosis' itself indicates a prolonged traumatic setting.) At an appropriate stage of the treatment the analyst gives an interpretation which re-creates a special infantile conflict of the patient. He may refer to the patient's ambivalent attitude to his mother and point out the patient's identical present attitude to his analyst. If this transference interpretation is given appropriately, it conveys to the patient that he experiences the present in terms of the past. The analytical situation is turned into the original infantile situation.

Within the particular analytical setting, the patient feels and acts according to some infantile pattern. He has to cope with the situation which has emerged from repression.

At the climax of this transference situation, a highly emotional atmosphere is created, and the openness of the ego-boundaries is very apparent. I assume that this state corresponds to Freud's metapsychological term of 'the ego being flooded with libido'.

This process is the most effective tool in our therapy. It enables split-off contents to emerge within the sphere of the conscious ego. The patient's reality-ego as a functioning unit is momentarily excluded from the situation and it is only the repressed complex which acts. This offers opportunity for a more adequate sublimation and reality-adaptation of these contents than in the original infantile traumatic situation.

The patient genuinely suffers from anxieties and frustrations, but at the same time enjoys the pleasure of nascent drives and imagos. It may even happen that the patient is thoroughly disturbed by the end of the session and carries

a great amount of anxiety into his real life. Nevertheless, the neurotic does not become disoriented in reality, nor is he incapable of distinguishing between his life in reality and in the transference neurosis.

It was in the transference situation that Freud (1925) discovered the function of 'it is not true'. He pointed out that adequate interpretations often prompt the patient to react with the following remark: 'I have never thought of this'. This negation aims at refusing the hitherto repressed trend which was forced into consciousness through the interpretation. Freud considered negation as a basic defence mechanism which copes with drives and at the same time—through their realization in the form of denial—further intellectual progress and the development of judgement.

(4) *The functioning of the split-off parts of the ego*

These dynamics, attained artificially in the analytical situation, represent the main functional aspects of play.

In the course of his normal development the child goes through a sequence of minor and major traumatic experiences. The impact of external reality, on the one hand, and the pressure of internal instinctual demands, on the other hand, force the ego to cope with the conflicts that arise. The integration of the ego and the adaptation to reality are achieved in two main phases. In the first the onslaught of traumata is mainly dealt with through the basic human defence mechanisms of identification, projection and repression. They enable the ego to carry out the splitting of those ego parts which cannot be integrated at a given stage of development. In the second phase the dynamic pressure of these split-off parts and the additional uninterrupted impact of new traumata from within and without impel the ego to a course of synthetizing activity on two fronts. This is achieved through play, where the split-off ego parts linked with the actual experiences take over the field of activity.

A world of magic non-reality is established

through this reappearance of split-off contents, which are strengthened by the additional influences of the child's actual life. Thus the child is compelled to approach these conflicts and imagos. He integrates them into his personality, and enlarges the radius of his sense of reality. The non-reality of the child's play leads to the increasing integration of his ego and to the broadening of his field of reality.

The flooding of the ego with the hitherto split-off parts lends a kind of ecstatic pleasure to the playing child. The transitory dominance of the so far repressed trends offers new gratifications. The child who hates some phantasied bad aspect of his mother can vent his hatred in the function of his play without anxiety for a while. A car may symbolize the mother and she may be destroyed in this form. The openness of the ego boundaries and the dominance of the primary processes create a confluence between phantasy and actual play. The child's ego, the mother and the toy submerge in magic oneness.

Proof that these factors are of importance for development lies in the compulsory-repetitive character of play. The same conflict is replayed many times. Effort to solve a given problem is maintained for a long period. There are examples that prove that play formations may return after months have passed and the original problem has been—seemingly—solved. In the first and second sessions of her analysis a four-year-old girl played with different coloured marbles, representing various kindergarten mates of hers. A few months' analytical work was followed by a five-month break. In the ensuing session she picked up the box with the marbles, labelled them with the same names, and went through the selfsame play. (Notes made in the first sessions gave full confirmation of this.)

An important safeguard against the above-described onslaught of the repressed ego-parts during play is the child's attitude that 'it is not true'. The repressed contents are considered by the ego as strange when they break through the barriers of the conscious

ego. The child has to yield to the impact of the split-off ego-complexes and starts playing, but he voices the universal human slogan of the playing child: 'Let's pretend!' Through this denial he stresses that—from the conscious ego's point of view—it is not true'. The child always knows that his play is make-believe; the healthier he is the greater the ability to switch from the integrated ego to the functioning of the disintegrated parts.

(5) *Play and denial of traumata*

This function of negation as a means of furthering the integration through transitory disintegration is most conspicuous in those castration games where the child himself plays the role of the castrated.

Andrew impersonated a lame beggar crawling along on his knees, but he regularly interrupted his game by jumping high and running around, only to collapse and drag himself along on all-fours afterwards. This illustrates in a simple way the process that has been described above. The split-off, ego-alien part transitorily controlled the scene and then was again repressed. Meanwhile, the ego had opportunity to face and integrate the possibility of being injured.

In 1933, Ferenczi had already recognized these processes as a major factor in the precipitated maturation that occurs under exceptionally grave circumstances and which may be revived in the trance of the transference.

Through the identification, or let us say, introjection of the aggressor, he disappears as part of the external reality, and becomes intra- instead of extra-psychic; the intra-psychic is then subjected, in a dreamlike state as is the traumatic trance, to the primary process, i.e. according to the pleasure principle it can be modified or changed by the use of positive or negative hallucinations. In any case the attack (of the adult) as an external reality ceases to exist and in the traumatic trance the child succeeds in maintaining the previous situation of tenderness (to the adult)... Detailed examination of the phenomena during an analytic trance teaches us that there is neither shock nor fright without some trace of splitting of personality. It will not surprise any analyst that part of

the person regresses into the state of happiness that existed prior to the trauma—a trauma which it endeavours to annul. One is justified—in contradistinction to the familiar regression—in speaking of a *traumatic progression*, of a *precocious maturity*... If the shocks increase in number during the development of the child, the number and the various kinds of splits in the personality increase, and soon it becomes extremely difficult to maintain contact, without confusion, with all the fragments, each of which behaves as a separate personality, yet does not know of the existence of the others (Ferenczi, 1933).

These considerations of Ferenczi account for states of trance in extremely grave cases, and yet they apply to the normal phenomena of childhood development and play as a biological activity. The clinical picture is the same, though to a lesser extent, under normal conditions. We assume that the metapsychological implications we have described accord with Ferenczi's assumptions. There is only a difference of quantity in the traumatic experiences. The normal child's development involves him in a continuous series of libidinal and aggressive conflicts. The ensuing anxiety and confusion are warded off mainly by the complex defence measure of splitting. Play 'endeavours to annul the trauma' through integrating the split-off complexes into the child's personality. Simultaneously an attempt is made to create an atmosphere of blissful gratification instead of the frustrating trauma.

(6) *Economical aspects of play*

So far we have considered the topical and dynamic aspects of play. A few remarks should now be made upon the economical aspect. One of the most characteristic features of play is the relative absence of fear. This is one of the most crucial points, as fear inhibits play and may cause withdrawal from the environment. Direct drive gratification also interferes with play activity. There is an optimal point and we have already understood that it is the function of 'it is not true', of negation that enables the integrated ego to maintain this precarious balance. We think

that Freud's 'flooding with libido' is responsible for the passionate pleasure of the playing child. Libido and aggression are defused through the disintegrative process of play, and the operation of the primary processes inundates the functioning parts of the ego with libido. This lends the playing child that touch of happiness which is so conspicuous and misleads the adult into believing that childhood is characterized by happiness. Every day psychiatric experience proves that the child's integrated ego cannot be termed happier than that of the adult. He even suffers from more stress; the difference is that he is able to dissolve the boundaries between his integrated ego and the split-off parts.

I assume that the same happiness is felt by patient and analyst after successful sessions, when the happiness of ego enrichment permeates the self. The happiness of artistic creation very probably falls into the same category.

Storch (1924) mentions that in early phases of a psychotic process, when considerable parts of the ego are still intact, the patient may exult in a feeling of passionate ego enrichment. The same applies to 'obsessed' magicians, prophets, and anybody in the state of ecstasy.

It must be stressed that Freud's 'flooding with libido' is the concomitant of the narcissistic withdrawal of cathexis and follows the defusion of the drives. Thus it means, not cathexis of the object, but cathexis of the ego.

Eva, ten years old, came for analysis because of free-floating anxiety and fear of burglars. She engaged in a kind of unavailing drunkard play in the first weeks of her treatment. One of us was drunk and killed the other one and a lot of other people as well. For weeks she did not let herself go: the play was a pretext for observing the analyst in order to find out what drunkenness actually meant. It was obvious in the play that she was afraid of the analyst. If the analyst came nearer to her in the course of the play, she became panic-stricken and shrank back. At last one day she was caught up in her own phantasy and

gave herself a free rein. The title of this phantasy was: 'A girl's dream'. She played the dreaming girl. She recited the text and the analyst had to do the acting. A drunkard enticed the girl into a hotel bar, got her drunk and in this way she became a princess. She lay on the couch and did the talking while the analyst was illustrating it. Gradually she lost her depressive, anxious attitude, her eyes started to sparkle, she was enraptured by her own phantasy, got up and finally took over the role from the analyst.

Her play enabled her to live through the incestuous craving that caused the symptom. She was even able to enrich her personality with the identification with the feared father imago. The boundaries of the self were dissolved, she fused with the analyst and this helped her in coping with the internal imagos. The part of the ego that used to give the anxiety signal, gave way to the split-off disintegrated parts, which came to the fore and started taking active part in the reality of the play. This process, after several repetitions, led to the final enrichment of the integrated ego with parts of the previously repressed complexes that presented the father as a dangerous heterosexual object.

Another example: Andrew, six years old, after entering the office was afraid of the devil who might have been in the wardrobe. Then he started to play first that the devil was his servant, later that he himself was the devil. Again, the opening of the ego boundaries fostered the appearance of the split-off aggressive contents that took the place of the integrated ego. This gave the precondition to the happiness of play, to the flooding with libido that establishes the enrichment with the hitherto repressed material. These processes were instrumental in throwing anxiety out of gear.

In metapsychological terms: the suspension of the anxiety signal was achieved through the flooding with libido of those ego parts that had previously given the anxiety signal. The carriers of this libido were the split-off parts. Their pressure broke through the repression

under the additional influence of the analytical situation and the interpretations.

This example reinforces my assumption that every interpretation represents either a seductive or an aggressive trauma. As a matter of fact, in keeping with the basic phenomena of bisexuality and ambivalence, experiences in the transference situation seem to prove that an interpretation usually presents seductive as well as aggressive aspects. What is called in literature 'handling of the transference and countertransference' amounts to the discussion of problems and facts in this matter. I do not think interpretations valid that lack this quality. Further discussion of this question would lead beyond the scope of this paper.

In this context I should like to refer to my correspondence with M. Balint, who mentioned Ferenczi's active techniques, especially his device of 'forced phantasies'. Ferenczi's therapeutic aims and theoretical considerations must undoubtedly have had a decisive influence on our above-mentioned concepts about 'flooding with libido' in play. The 'breaks-through' he achieved were very similar to those we assumed in the highly emotional play in the analytical situation.

The negation put into action by the integrated ego enables it to bear its own submerging in the flood of libido and aggression that is brought into operation through the appearance of the split-off parts. This is one function that secures pleasure economy. But if there is too high a degree of 'flooding', anxiety becomes dominant again, and the child discontinues his play. On the other hand, the delicate balance inaugurated by negation between reality and magic may be disturbed through too strong stimuli in the environment, when the described narcissistic withdrawal into play breaks down and the drives are turned towards an object in reality, i.e. the child attacks a playmate with love or with aggression.

(7) *The role of motor activity*

Play enables the child to outmanoeuvre the dangers of internal and external reality with

a much smaller output of mental energy through his alternation between the two worlds in the form of trial activities, and consequently with a lesser risk of provoking anxiety, in both its forms: anxiety due to the tension of too strong drives in general, and anxiety as an ego signal.

This brings us to the interpretation of the most archaic play feature, motor activity. Motility is absent from children's play only in extremely pathological cases or under very unusual circumstances. Muscular activity serves not only to master the play objects but also, unspecifically, relieves the surplus energy. Muscular activity contributes to both libidinal and destructive drives and thus leads to the widening of the ego boundaries.

Apart from the pleasure of drive gratification proper, muscular activity greatly widens the range of magic omnipotence. Sound and distance that are achieved through noisy toys and ball games give the child the feeling of personality enlargement. A baby loses the pleasure of beating on a table with a spoon if the spoon is wrapped in soft material that reduces the noise.

The function of negation, of 'it is not true', fully applies to motor activity in play. Every physical activity in play bears this out. The moment this function of negation is abandoned the child hits too hard, and inflicts pain upon himself or others; the free swing between the ruling of the integrated ego and that of the split-off part ceases; motor activity gives way either to wild instinctual gratification or lameness. This function of negation within the pleasure of motor activity is impressively stressed in Freud's description of the little boy's play with his wooden reel in *Beyond the Pleasure Principle* (1920).

Negation allows economy of muscular energy. Flexibility and diversification of muscular activity are maintained. What is called playful activity is the manifest, most conspicuous feature of play and it already shows in the preverbal period all the characteristics of the later phantasy play. There is a definite narcissistic trait, in that the objects

of muscular activity can be dropped at any moment and the child's own body may become the sole object of muscular activity.

At about the end of the first year, this oscillation within the muscular sphere and its integrative and intellectual implications are all too obvious. The child who stands up and throws himself passionately to the ground, walks and falls alternately and tirelessly displays graphically the oscillation between true and not-true (negation). The pleasure of muscular activity for its own sake paves the way to the recognition of the child's own body as the object of his play. Integration of external reality and of the newly discovered parts of the self make progress.

(8) *Play and infantile sexual patterns*

The characteristics of primitive play are identical with those of infantile sexuality. The ebb and flow of play is fully applicable to infantile sexuality with its easy change from narcissistic positions to object positions, from auto-erotic to object-erotic activities. These considerations are taken into account and summarized by M. Balint—from quite another angle—in his article *Eros and Aphrodite* (1938). In it he assumes that the function of fore-pleasure is fundamentally different from that of end-pleasure, and is a primal attribute of living beings.

Every activity of the young child and of the infant can be described in terms of an ego function, and all these activities can be expressed in terms of play. The younger the child, the less integrated his ego, the less distinct will be the area that has been described by Winnicott (1953) as the intermediate area; and the more indistinct will the oscillations be between the ruling of the integrated ego and that of the split-off parts. Actually in these early phases the prevalence of part-objects (Klein *et al.* 1952), of ego nuclei (Glover, 1949), of mouth-ego (Hoffer, 1950, 1952) points in different terminologies to the 'atomized' (Ferenczi, 1933) state of the ego functions. The uncoordinated function of the component instincts in the very young

child is paralleled by the incoherency of his play activities in their scope, duration and object relations. As a matter of fact one can hardly discriminate between play activity and sexual activity at the preverbal stage.

This is illustrated by the following clinical fact. While the healthy baby is fed on the breast, he plays with his mother's breast in most cases. He caresses it, tries to cling to it with his hand. This play activity operates on the oral zone as well. The sucking baby lets the nipple slip from his mouth, pushes it out only to take it back again. While doing this, he often smiles at the mother. With disturbed children this 'play' may hinder feeding and indicate early conflicts. There are children who become so involved in this play activity that they do not thrive.

I assume that any play at the later developmental stages is an elaboration of this primal play which contains all the characteristic features of play. It has an object, it shows particular pleasure (identical with fore-pleasure), it displays directed muscular activity and a strong tendency to repetition and, finally, it is not absolutely essential to self-preservation. Nevertheless, it seems to be closely connected with feeding, it definitely stimulates the child-mother relation. At the same time if it operates beyond an optimal level it disturbs the child's well-being and upsets his happy relations with the mother.

The question arises: what is the meaning of this primal play, what sets it in motion and what is its influence on the child's development?

Muscular tiredness and involuntary movements on the part of the mother or changing of her posture, and also disturbing noises in the environment cause unpleasure and ensuing anxiety in the baby. Of even greater importance is a too abundant or irregular flow of milk which may interfere with quiet breathing and cause the feeling of being suffocated. I attribute the same importance to a too deeply intruding nipple which may irritate the child's palate or throat. The breast often blocks nasal breathing. Some of these factors

occur temporarily even in the optimal child-mother relation.

I think that this archaic set-up occurs in every later object relation. After a while object cathexis—be it the cathexis of an internal imago or that of an external object—causes tension and displeasure. Every object, be it a person or a thought, has to be given up transitorily before we can turn to it again. Everyday life, transference neurosis, children's play offer an abundance of examples. Complete pleasure leads inevitably to satiation and this instigates even at an optimal level a tendency to give up the object. If it cannot be abandoned at least partially, tension follows.

(9) *The primal play at the breast*

If we continue our consideration of the suckling we have to draw the conclusion that sucking and its described concomitants create a situation of tension. The baby withdraws his libido and turns it to the memory traces about the mother's body. Whether they are conceived as external or internal objects, parts of the mother's body or parts of his own body, does not matter in this regard. What matters is that he can find gratification in a narcissistic-hallucinatory way after he has discarded the nipple of the mother's skin. (Winnicott's 'illusion function'.) This enriches the ego but soon leads to frustration and subsequently to anxiety that forces the baby to send out the cathexis to the mother's or to his own body. In clinical terms: to touch the mother's body with his mouth and with his hand.

Thus the baby on the breast goes through a continuous sequence of the following events: The intrusion of the external world and of his own drives create—after a phase of gratification—a traumatic situation in miniature. As a defence he gives up this situation and tries to find gratification in a hallucinatory way. He hallucinates the nipple which is *out of his mouth* as if it were *in his mouth*. He hallucinates the *non-present* breast as if it were *present*. The biological situation helps the baby in this operation as the nipple and the

breast, though out of mouth, can be grasped at any moment with his mouth and hands.

But this biological situation is fraught with the imago of the anxiety arousing, suffocating bad breast. Before the child again turns to the breast this bad aspect has to be repressed and split-off. I assume that this imago appears immediately after the child has touched the nipple with his mouth. And here comes into operation—in my opinion—the primal play with the nipple and the mother's skin. The previously split-off bad imago which reappears is dealt with through play which denies these bad aspects. The nipple and the skin are treated *as if* they were only pleasure giving; their dangerous aspects are denied.

This primal play enables the child to integrate into his developing ego those objects which were experienced as dangerous. Pathological cases in which the children only play on the breast without sucking properly, prove to me that this integration is preceded by disintegration when only the dangerous split-off aspects are in evidence, and they are approached with this primal play. Then they occupy the whole field of activity and play does not succeed in denying their bad qualities. They stay isolated and cannot be integrated into the ego. Instead of helping the child-mother relation, they actually interfere with it. Already at this tender age, these cases display the fact which is so obvious with the play of disturbed older children. Play functions with them as a narcissistic withdrawal without paving the way to true reality adaptation. The explanation is that the split-off parts proved to be too powerful, negation and play utterly failed in handling them. The child, be he a mere baby or an older one, cannot connect his play with reality, his phantasy cannot be fitted into his object relations.

In the first phase of this primal play the child-mother primary object-relation (A. Balint, 1949) is disrupted. Though the object cathexis is abandoned and the self is cathected, this mouth-hand play brings a great deal of sensory stimuli to the child. It creates and revives memory traces which can function

afterwards as internal objects. The integrative function of primal play conveys to the child a feeling of omnipotence. This positive function may turn into its opposite under the pressure of too strong instinctual demands or too great frustrations. Then play leads—as mentioned above—into entanglement in disintegrated activities. In approaching the problem from another viewpoint, his research and theoretical assumptions on early ego development led Hoffer (1952) to an interpretation which seems to be close to our definition of play as a complex of integrative-disintegrative processes: 'Self-control through object control finally leads to transient object love.'

I have already stressed that play and infantile sexuality cannot be distinguished in their manifestations. If this is valid, it seems to support M. Balint's opinion quoted on the origin of infantile sexuality in contradistinction to mature genitality. In the earliest stages the identity of infantile sexuality with play may lead to the assumption that the former is a primary ego function and may be the starting-point for new theoretical aspects of infantile sexuality. Recently, Fairbairn (1954) has made an attempt to interpret the earliest mental phenomena in terms of ego functioning.

It is evident that at this stage we cannot talk about a sharp difference between integrated and disintegrated, between ego and split-off parts, but we may assume that the gratifying as well as the frustrating mother imagos have to be faced. I assume that every detail of the feeding and nursing situation becomes for a while traumatic. Then it is introjected and afterwards split off. In the consecutive course of his primal play the child attempts to integrate the disintegrated into his immature ego.

At this juncture the question formulated by M. Balint (1952) must be faced. He stated that real adaptation—the acceptance of unpleasure—passes through the two modal points of archaic object-love and 'normal depression'. He did not think that the same importance could be attributed to the paranoid position. My assumptions on primal play can be interpreted in both ways:

re-cathexis of the nipple might be the sign of an attempt to regain the lost object as well as that of aiming at the annihilation of the persecuting object. This persecutory character of the nipple may be envisaged, e.g. in the suffocating effect of an abundant flow of milk. I conjecture—here I seem to be in agreement with Balint—that minute observation of transference phenomena will offer further material in this line of research.

(10) *The basic metapsychology of play*

The consideration of clinical data and concurring theoretical assumptions has led me to accept the primal biological situation of breast-feeding as the stimulus for the most archaic form of play activity. It might help us to a formulation about play dynamics reduced to basic metapsychological terms. I think that our theoretical formulations about play in terms of the disintegrative-integrative process operating under the direction of negation, can be reduced to some primary mental phenomena; phenomena that were hypothetically assumed by Freud in his thoughts on the operation of the two basic instincts and on the establishment of the ego.

In a previous paper on depersonalization (1955) I accepted his formulations about the defusions of instincts and about the ebb and flow of neutralized mental energy whilst coping with the ensuing intermediate states of anxiety. I assumed there that so-called depersonalization is an inevitable intermediary state in the course of mental metabolism. It marks the stage of 'defusion' (Freud) which operates while the neutralized, delibidinized energy is used for the purpose of the secondary processes which enrich the ego and foster its integration. This ego-building implies a threat (operation of the defused death instinct) to the ego that must be immediately counteracted. In Freud's (1923) formulation: 'The ego incurs of itself becoming the object of the death instincts, of perishing. In order to be able to help in this way it has to become flooded with libido itself.'

I thought that depersonalization was th

phase between these two integrative but opposing functions. If the first phase cannot be discarded (overwhelming anxiety, too much released aggression, etc.) and the recathecting fails, it is felt by the ego as an emptiness, a strangeness of the internal or external world. On the other hand, if the second phase of the integration process, the libidization, gains the upper hand, it interferes with sublimation.

I have suggested that the archaic biological pattern, as well as the primary human traumatic experience which prompts defusion and creates the total of the above phenomena, is formed the moment the baby loses the nipple or its substitute from his mouth. I have assumed that this experience represents the inevitable transitory phase between the trauma of losing the object and the defensive stage of coping with this loss through integrating the lost object into the ego with the help of identification.

(11) *Play and ego development*

I quoted in my paper on depersonalization Freud, who pointed to negation as a phenomenon which is very probably preceded by defusion (1925). He regarded this function 'as a sign of defusion of instincts due to the withdrawal of libidinal components'. Transference phenomena seemed to prove to me that negation plays an important role in depersonalization. It is an integral part of and serves repression or splitting. Thus it precipitates disintegration in the first phase of a basic process which, despite this fact, eventually leads to ego enrichment.

Now our considerations of play have led us to accept the fundamental operation of phenomena that seem to be present in a totally opposite function. We have assumed that the integrative function of play develops through a phase of disintegration, through the prevalence of split-off parts. We have tried to prove that the function of negation invests the ego with the capacity of controlling this precarious balance.

One of the main factors in capacity to play is the ability to withdraw the libido or the

aggression from the objects to apply it in neutralized form to ego cathexis, thus enabling the ego to recathect the objects with better adaptation. Hartmann (1938) thinks: 'it is possible, and indeed probable, that the relationship to reality is learned by way of detours. There are reality adaptations which at first certainly lead away from the real situation. The function of play is an example.' Milner (1952) has approached these problems of the development of the sense of reality in her paper on symbolism.

Playing means to possess an object and being able to disregard it at one and the same time. The main weapon in this operation is negation, permitting the creative oscillation between reality and illusion, object and symbol. Here the negation's full creative importance as conceived by Freud comes into force. In Hartmann's formulation (1938): 'Denial is based on flight, and avoidance even more clearly so; Anna Freud has shown us how they both result in ego limitation. But avoidance of the environment in which difficulties are encountered—and its positive correlate, the search for one offering easier and better possibilities for action—is also a most effective adaptation process.'

(12) *Play and depersonalization*

We face two aspects of negation. In depersonalization it is an integral part of and serves repression or splitting: in play it helps the emergence of the split-off parts. In the former it precipitates disintegration; in the latter it advances integration.

We think that the most basic function of play is anchored in the second phase of Freud's defusional-fusional process, it represents the 'flooding with libido', when the ambiguous effect of neutralization has to be overcome in order to save the ego from the freed aggression of the first phase. The flooding with libido is an equivalent to refinding the object in hallucination without being dependent on it in reality.

Depersonalization represents the archaic pattern of losing the object, the nipple—play

represents the effort of finding and integrating this object.

The passionate playing of the child is the clinical manifestation of flooding and integration. This ecstatic state is a dramatic counterpart of the confusional state of depersonalization, the components of which are in Federn's (1949) description: 'Inaccurate feeling for time, past, present and future; the passing of the moment is also vague.' These characteristics fit exactly into a description of play.

The assumed difference between these two basic mental states is that while in depersonalization the acting part of the ego is flooded with defused aggression which causes anxiety, in play it is flooded with libido, so as to counteract the previous phase. There is an intricate and intimate inter-relation between this positive integrative phase and the operation of the infantile component instincts. The ego's strong narcissistic position and the operation of autoerotic drives enables the child to carry out the dramatic identifications and quick oscillations which are needed in play. The common characteristics of play and

infantile sexuality are: flexibility and versatility, the absence of climax, the variability of cathecting power.

While the ego boundaries are more or less open in every direction (external world and id) and the ego's controlling capacity is relatively weak, the permanent task of widening and closing these boundaries is carried through this self-regulating process of 'depersonalization' and 'play'. I label them in this traditional way just for the sake of convenience; they represent basic phenomena in my terminology. In the formative years of the basic identifications, in the course of the building and passing of the Oedipus complex, they are the main means available for this regulating function. After the firm establishment of the superego, this self-regulating function becomes superseded. The more elaborate ones of those functions that Freud described under the heading of the sense of reality (judgement, higher degrees of sublimation, selection, abstract thinking, etc.) replace the function of play in the struggle to master inner and outer reality.

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CONSIDERATIONS ARISING OUT OF THE SCHREBER CASE

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INTRODUCTION

The recent publication of an English translation of Schreber's *Memoirs of My Nervous Illness*† can hardly be allowed to pass without special comment. These *Memoirs* possess considerable intrinsic interest owing to the fact that they provide a detailed description of the phenomena of a psychotic illness as experienced by the patient himself—in this case a member of the legal profession whose intellectual and professional qualifications were such as to have led to his being appointed *Senatspräsident* (President of a Panel of Judges) in the Court of Appeal at Dresden at the age of 51, six weeks before the acute onset of his psychosis in October 1893. Retrospective autobiographical accounts of a psychotic illness are, of course, by no means unknown in literature; but that Schreber's *Memoirs* possess unusual importance may be judged from the fact that Freud described the original publication as 'an invaluable book' (Freud, 1923). In the first place, although Schreber only began to write his *Memoirs* in 1900 (by which time the more acute phase of his psychosis had passed), they were compiled from notes made assiduously throughout his illness—with the result that they represent a contemporary, rather than a retrospective, account of his experiences. In the second place, there are appended to the *Memoirs* three official Reports furnished by Dr Weber, Superintendent of the Sonnenstein Asylum in which Schreber was confined for eight years, in connexion with proceedings which the latter instituted for the rescinding of his

tutelage, and as the result of which he obtained his release in September 1902. The reader is thus provided with an opportunity to compare Schreber's subjective account with an objective psychiatric assessment of his condition. Quite apart from their intrinsic interest, however, the *Memoirs* possess the historical importance of having provided the material for Freud's classic study of paranoia (Freud, 1911), which represents one of the earliest attempts to apply psychoanalytical insight to the study of the psychoses.

DR WEBER'S REPORT ON SCHREBER

According to Dr Weber's Report, dated 9 December 1899, Schreber had already suffered from 'a serious attack of hypochondria' in 1884–5, but had recovered from it; and it was not until November 1893 that it was found necessary to admit him to a mental hospital for the second time. His second illness was at its onset characterized, like the first, by hypochondriacal ideas; but it was not long before the presence of 'ideas of persecution...based on hallucinations' and accompanied by paraesthesiae became apparent. Hallucinations, both visual and auditory, rapidly multiplied; and he 'mentioned that all sorts of horrible manipulations were being performed on his body...for a holy purpose'. He became inaccessible and would sit for hours 'completely stiff and immobile', sometimes staring into space with frightened eyes. He made repeated attempts to commit suicide, refused food and was retentive of faeces. In November 1894 there occurred a mitigation of his catatonic rigidity, and he began to speak coherently, albeit in an abrupt and staccato manner. At the same time there emerged 'a fantastic delusional elaboration of his continual hallucinations'. He felt himself to be

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† *Memoirs of My Nervous Illness*. By Daniel Paul Schreber. Translated, edited, with introduction, notes and discussion by Ida Macalpine and Richard A. Hunter (pp. 416, 35s.). London: Wm. Dawson and Sons Ltd., 1955.

'adversely influenced by certain persons previously known to him', notably Prof. Flechsig under whose care he had been placed during his first psychotic illness. He believed that the world had been changed, God's omnipotence destroyed, and he himself adversely affected by the machinations of these persons. He shouted abusive remarks out of the window, and indulged in harangues against the 'soul-murderer' Flechsig. He was subject to unrestrained attacks of bellowing, and often strummed upon the piano in the most violent fashion. He expressed the convictions that the world had come to an end, that everything around him was 'a sham', and that people were only 'lifeless shadows'. At the same time he became more polite and more accessible to the doctors and attendants; and he began to show an increasing capacity for restraint in a social setting. He also began to engage in various normal activities. On the other hand, he became increasingly sleepless and noisy during the night. As time passed, he began to show signs of what subsequently developed into the delusion that he was being transformed into a woman. He was frequently found in his room half-undressed, declaring that he had feminine breasts and contemplating pictures of naked women; and he had his moustache removed. In 1897 a further change was observed in his condition. His insomnia and nightly outbursts diminished. He began to correspond with his wife and others; and his letters 'hardly showed anything pathological, but rather a certain insight'. He also became able to 'talk about the most varied matters in a relevant manner and moreover to control himself in a way which at times hid his illness'.

Having thus described the course of Schreber's illness, Dr Weber then draws attention to 'the way in which from the early more acute psychosis which influenced all psychic processes and which could be called hallucinatory insanity, the paranoid form of illness...crystallized out...into its present picture'. It would thus appear that an original condition of paranoid schizophrenia became

transformed into a condition of overt paranoia through the elaboration of a coherent delusional system.

SCHREBER'S OWN ACCOUNT OF HIS 'NEUROSIS'

According to the account provided by Schreber himself in his *Memoirs*, both his nervous illnesses were brought on by 'mental overstrain'—overstrain occasioned in the first instance by his parliamentary candidature, and in the second by his strenuous efforts to prepare himself to fill the high office of *Senatspräsident* with credit. The first illness was distinguished from the second, however, by the absence of 'any occurrences bordering on the supernatural'. The second illness was ushered in by insomnia, which, significantly enough, began to trouble him just when he felt he had succeeded in mastering the difficulties of his new office; and during the course of several sleepless nights he was disturbed by 'a recurrent crackling noise in the wall'. Previous to this, however, the abhorrent thought had occurred to him in bed one morning 'that it really must be rather pleasant to be a woman succumbing to intercourse'. After a consultation with Prof. Flechsig, under whose care he had been placed during his first illness, he became anxious, depressed and suicidal; and he was accordingly admitted to the Asylum of which Prof. Flechsig was Superintendent. His condition rapidly deteriorated; and he records that decisive for his 'mental collapse' was one particular night during which he had 'quite an unusual number of pollutions (perhaps half a dozen)'. Thereafter there appeared 'the first signs of communication with supernatural powers, particularly that of nerve-contact which Prof. Flechsig kept up with me'. He concluded that Flechsig's soul had acquired the power of putting 'divine rays' to its own use, and was employing this power to further secret designs against him ('soul-murder'). Later he concluded that departed souls also caused divine rays to make contact with his nerves, and that the 'voices' of these souls spoke to

him in 'nerve-language' which provoked in him compulsive thinking and, when several spoke at once, threw him into confusion. Still later he came to feel that God Himself made a direct contact with his nerves by means of divine rays—the reason being that the nerves of living human beings, particularly when in a state of 'high-grade excitation', exercised such a power of attracting 'the nerves of God' as to make it difficult for Him to withdraw. All this he felt to be 'against the Order of The World'. Later, however, it became evident to Schreber that it was in accordance with the Order of the World that 'a human being... must under certain circumstances be "unmanned" (transformed into a woman) once he has entered into indissoluble contact with divine nerves (rays)'. Such circumstances arose 'in the case of world catastrophes which necessitate the destruction of mankind' on account of 'voluptuous excesses' or 'nervousness'. Then 'in order to maintain the species, one single human being was spared—perhaps the relatively most moral', and this individual 'had to be *unmanned* (transformed into a woman) in order to bear children' to repopulate the world. Schreber, who, significantly enough, was childless, felt cast for this role; and he believed that, in view of the destruction of all other human beings, the necessary means of life had to be provided for him by 'fleeting-improvised-men', viz. souls who 'were for this purpose transitorily put into human shape by miracles'.* The process of 'unmanning' consisted in the retraction of the external male genitals into the body and the transformation of the internal male organs into the corresponding female organs—a process subject to constant obstruction by the rays of 'impure souls', conspicuously Flechsig's. The efficacy of Flechsig's interference was due to his having established a nerve-contact with God such that God was unable to dissolve it. The aim of Flechsig's plot

* This conception has a bearing on the fact that, as described in Dr Weber's Report, Schreber felt the world around him to be unreal, and the people in it 'lifeless shadows'.

('laid... perhaps in March or April, 1894') was to prove that Schreber's illness was incurable and thus to obtain control over his soul and subject his body, transformed into a female body, to 'sexual misuse'. 'This abominable intention' so outraged Schreber's 'whole sense of manliness' that he decided to end his life by refusing food, and so to sacrifice himself for God, whose omnipotence was being endangered by Flechsig's infamy. It only occurred to him much later (when he was actually writing his *Memoirs*) that God himself must have been privy to this plot if not actually responsible for it, and that, in fighting against a plot so 'contrary to the Order of the World', he was really fighting against God on behalf of God's true nature.

In June 1894, as Schreber records, he was transferred from Dr Flechsig's Asylum to Dr Pierson's Asylum for a few days, and thence to the Sonnenstein Asylum, where he came under Dr Weber's care, and where he remained until his discharge in September 1902. In these moves he was followed by the souls who had established nerve-contact with him, and in particular by Flechsig's soul. In retrospect he divided his stay at Sonnenstein into two periods. In the first period, which lasted for about a year, the 'miracles' wrought upon him remained 'terrifying and threatening' to an extent which made him seriously concerned for his life, his manliness, and his reason; and he remained convinced that those around him were only 'fleeting-improvised-men'. In the second period, by contrast, the 'miracles' became increasingly harmless and ordinary, and the voices became reduced to 'an empty babel of ever recurring monotonous phrases', which he sought to drown by playing the piano whenever possible. Also he gradually came to feel that those around him were ordinary human beings. So long as the attacks by 'impure souls' continued, however, he interpreted these as due to a desire on the part of the souls to withdraw from the attraction of his 'over-excited nerves', and for this purpose to effect in him an unmanning which was not in consonance with the Order

of the World. His own purpose, on the other hand, was to draw these souls to himself in order to cause their dissolution, and thus (a) to restore God's omnipotence, and (b) to effect a complete calming of his nerves through sleep and an 'unmanning, in consonance with the Order of the World, for the purpose of creating new human beings'. It was this purpose that motivated his phase of immobility. However, November 1895 witnessed a critical change in his whole outlook; for during this month the conviction was borne in upon him that the Order of the World imperiously demanded his unmanning, and that, faced with the alternatives of 'either becoming a demented human being in male habitus or a spirited woman', he would only show 'common sense' in choosing the latter. Thereafter, the belief grew in him that, although God tended to withdraw from him if a state of 'soul-voluptuousness' was not maintained in his body, the attraction of his nerves had ceased to be regarded by God as a menace and had even become congenial to Him. The increasing harmlessness of the miracles supported this belief. Hitherto he had regarded the effect of divine rays as both destructive to himself and disturbing to the Order of the World; but now he began to be impressed by evidence of the creative effect of divine rays (creation being their proper function). He constantly witnessed such miracles as the spontaneous generation of insects round him when he sat in the garden, and thus 'gained the certain conviction that spontaneous generation (parentless generation...) does in fact exist'. These miracles, like everything else that happened in his environment, appeared specially directed towards his person; and he was thus led to formulate the explicit conclusion: '*everything that happens is in reference to me*'. In conformity with this conclusion he felt that he had become in a sense 'the only human being' so far as God was concerned. By this time his bodily state had come to alternate between a state of 'such sensuous pleasure as gives a pretty definite foretaste of female sexual enjoyment in inter-

course' and 'all sorts of more or less painful and disagreeable states', in particular tearing headaches and fits of bellowing, which he attributed to the attempt of rays to withdraw from him. His states of female voluptuousness could not, he felt, be attributed to 'mere low sensuousness'; and it was foreign to him to contemplate directing any sexual desire '*towards other human beings (females)*', above all in intercourse. However, when he felt 'alone with God', it seemed incumbent upon him 'to give divine rays the impression of a woman in the height of sexual delight'; and, to create this impression, he had to imagine himself as 'man and woman in one person' having intercourse with himself—a procedure which had 'nothing whatever to do with any idea of masturbation'. Thus, in his relationship with God, customary morality had been reversed; and for him voluptuousness had become 'God-fearing'. This situation had been forced upon him as the result of God having placed Himself in a relationship to him contrary to the Order of the World (*viz.* one serving the purpose of sexual pleasure, and not that of procreation); but he was convinced that it was only through the measures which he had come to adopt that he had saved his reason. What the final outcome would be became for him now a matter of speculation only. His former conviction that his transformation into a woman would one day be completed with a view to the renewal of mankind had become undermined as the result of his coming to realize that mankind had not really perished. The probability therefore seemed to him to be that, whilst 'a strong indication of femaleness' would characterize him to the end of his days, he would nevertheless 'die as a man'.

FREUD'S INTERPRETATION OF SCHREBER'S ILLNESS

Freud's interpretation of Schreber's illness, as described in his well-known paper on this subject (Freud, 1911), is briefly that the exciting cause of the illness was 'an outburst

of homosexual libido' which became attached to Flechsig, and that 'his struggles against the libidinal impulse produced the conflict which gave rise to the pathological phenomena'. As to why this outburst of homosexual libido occurred when it did Freud felt compelled, on the basis of the data available, to content himself with the observations (a) that 'every human being oscillates all through his life between heterosexual and homosexual feelings', and 'any frustration or disappointment in the one direction is apt to drive him over into the other', and (b) that Schreber's illness must have been associated with involutional changes. Schreber's attitude to Flechsig was interpreted by Freud as due to the transference of a passive homosexual wish-phantasy originally attached to his father (who had died when he was nineteen), and the conversion of the object of his homosexual desire into a persecutor owing to the inacceptability of the phantasy to his ego. As the illness progressed, the superior figure of God was substituted for Flechsig in the role of persecutor. This substitution, so far from representing an aggravation of Schreber's conflict, was really a step towards its solution; for, whilst the wish to play the part of a female prostitute to Flechsig encountered a resistance, no such resistance was encountered by the task of providing God with the voluptuous sensations which He seemed to require. 'Emasculation' ceased to be a disgrace, and became 'consonant with the order of things'; and, since it would become instrumental in the renewal of the human race after its extinction, it would lead to the revering of Schreber's name. His ego thus found compensation in his megalomania, while his feminine wish-phantasy became acceptable. At the same time, his returning sense of reality led him to postpone this solution of his conflict to the remote future. The conflict which he thus sought to resolve in his delusional system was at bottom an infantile conflict with the father whom he loved, but who appeared in the light of one who interfered with his autoerotic gratifications. The delusional system itself represented a triumph

for his infantile sexuality; for voluptuousness became demanded of him by his father, and the threat of castration by his father, which was the source of his anxiety, became the means of fulfilling his wish to be transformed into a woman. The frustration in actual life which mobilized this wish was the fact that, although he described his marriage as otherwise happy, it had, to his regret, brought him no children, and in particular no son to console him for the loss of his father and to provide an object for his unsatisfied homosexual affections.

FREUD'S THEORY OF PARANOIA

Having drawn attention to the central role of the father complex in Schreber's illness, Freud then proceeded to consider why this illness should have assumed a paranoid form and to submit a general theory of the psychopathology of paranoia. He had already formulated this theory before he became acquainted with Schreber's *Memoirs*; but the detailed account contained in the *Memoirs* provided him with the confirmation which his theory otherwise lacked owing to the inherent difficulty of analysing a paranoid patient. Freud appreciated from the first that the distinctive nature of paranoia is determined, 'not by the nature of the complexes themselves' (which are not specific to paranoia), 'but by the mechanism by which the symptoms are formed or by which repression is brought about'. At the same time he felt 'driven by experience to attribute to the homosexual wish-phantasy an intimate (perhaps an invariable) relation to this particular form of disease'. He attributed the presence of such a wish-phantasy to a fixation at the point at which the 'narcissistic' passes into the 'alloerotic' stage of libidinal development. Normally the homosexual tendency arising at this point is sublimated in such a manner as 'to contribute to the social instincts'; but in persons thus fixated such sublimation is precarious, and is liable to be reversed in the event of circumstances which involve either

(1) an unusual stimulation of libido, or (2) frustration in heterosexual or social relations. A similar 'disposition' Freud believed was to be found in cases of schizophrenia; but the differences between this disorder and paranoia were due to differences in 'dispositional fixations'. In paranoia, projection with delusion-formation is characteristically employed to counteract a preceding withdrawal of libido from outer objects and cathexis of the ego with the libido so withdrawn. It was such a withdrawal of libido in Schreber's case that gave rise to his feeling that the outer world was unreal and had indeed been destroyed; and it was the accompanying libidinal cathexis of his ego that gave rise to his grandiosity and self-reference. Whilst admitting the possibility that a withdrawal of libido may be 'the essential and regular mechanism of every repression', Freud is more concerned to point out that 'detachment of the libido, together with its regression on to the ego' is a characteristic mode of repression shared by paranoia with schizophrenia. In the case of schizophrenia, however, the dispositional point of fixation is earlier, and the mechanism employed in the 'attempt at recovery' is not projection with delusion-formation, but 'a hallucinatory (hysterical) mechanism'. Also in schizophrenia, as distinguished from paranoia, 'the forces of repression' are stronger than 'those of reconstruction'. Nevertheless, since there may be multiple points of fixation in varying degree, 'paranoid and schizophrenic phenomena may be combined in any proportion'. Such a combination was a feature of Schreber's illness.

SUBSEQUENT DEVELOPMENTS IN PSYCHOPATHOLOGY

The above explanation of the phenomena of paranoia was, of course, formulated by Freud at a time when he still classified instincts into ego-instincts and sex-instincts (libido). Consequently, he takes no direct account of aggression in his explanatory formulations. Some reference to aggression is admittedly involved in such passages as (1) that in which

he states that the main purpose of Schreber's delusions of persecution was to justify his hatred of one whom he had formerly loved, and (2) that in which he rather inconsistently attributed the comparatively favourable outcome of Schreber's illness to his father-complex being in the main positively toned. Nevertheless, his formulations are couched exclusively in terms of the economics and fixations of abstract libido. Freud had not yet, of course, introduced his concepts of the id and the super-ego; but his explanations take little account of the ego except in so far as it is described as rejecting libidinal wishes of a homosexual nature, and as becoming the object of libido withdrawn from external objects. The tendency to look to the libido theory and to the abstract concept of libido, rather than to the psychology of the ego and its object-relations, for an explanation of 'the choice of illness' still persisted in Freud after the formulation of his theory of the mental constitution in terms of id, ego and super-ego; and, as expressed in Abraham's revision of Freud's original theory of libidinal development, it remains an entrenched feature of psychoanalytical thought. It was in the hope of counteracting this tendency and paving the way for an explanation of 'the choice of illness' exclusively in terms of the psychology of the ego and its object-relations that in 1941 the present author (Fairbairn, 1952, pp. 28-58) submitted a theory of libidinal development in accordance with which an original state of infantile dependence (corresponding to 'the oral stage') gradually comes to be replaced by a state of adult dependence (corresponding to 'the genital phase') during the course of a transitional stage characterized by the operation of four 'transitional' techniques* for controlling the conflicts involved in internal object-relationships. In terms of the theory, these techniques—the paranoid, the obsessional, the phobic and the hysterical—may

* The term 'technique' is preferable to the term 'mechanism'; for, whereas 'mechanism' relates to the fate of an impulse, 'technique' relates to the activity of an ego.

be regarded as representing varying methods of attempting to avert the two great psychopathological disasters to which the individual is liable owing to internal conflicts originating respectively during the earlier and later phases of the stage of infantile dependence—viz. (1) a schizoid state (related to a condition of preambivalence), and (2) a depressive state (related to a condition of ambivalence). So far as concerns the paranoid technique, it is noteworthy that Freud describes paranoid projection and delusion-formation as representing 'an attempt at recovery'; and he implies that it may be also employed in an attempt to avert an impending psychosis. He thus approaches the conception of the role of the paranoid technique since formulated by the present writer. However, as already indicated, the main aim of the latter's theory of libidinal development was to provide a psychoanalytical explanation of 'the choice of illness' exclusively in terms of the psychology of a dynamic ego and its object-relations—on the grounds that the persistence in psychoanalytical thought of a current of explanation couched in terms of abstract libido has now become an obstacle to progress. This current of explanation is, of course, very far from being exclusive. For one thing, Freud's formulation of his final theory of instincts rendered possible the adoption of a psychopathology in which a definite role could be assigned to aggression as well as to libido; and, for another, Freud's subsequent formulation of his theory of the mental constitution in terms of id, ego and super-ego promoted the development of an ego-psychology based largely upon the conception of an internal object-relationship, involving aggressive no less than libidinal components, between the ego and the super-ego. These developments enabled Freud to envisage the possibility of a sadistic super-ego assuming the role of an internal parental moral persecutor, and to recognize that it actually assumed this role in cases of depression (Freud, 1927, pp. 74-7). Subsequently, the researches of Melanie Klein led her to the conclusion that the development

of the super-ego is effected through the integration, to any degree of success, of a multiplicity of internalized part-objects, many of which are 'bad objects' and function as internal persecutors (Klein, 1948, pp. 282-310, 330-1). In accordance with this view, it becomes possible to understand how, in circumstances favouring regression, the super-ego may disintegrate into the internalized part-objects from which it originated, with the consequent release of a host of internal persecutors, and how such internal persecutors may be defensively projected into the external world (Klein, 1948, p. 221). Such a conception serves to explain what happened in the earlier phase of Schreber's illness. A certain nucleus of the super-ego would, however, appear to have survived and to have assumed the form, partly of Flechsig, and partly of God. Then, as the reconstructive process asserted itself in the later phase of his illness, the multiple persecuting part-objects became re-integrated into the super-ego within the internal world, and their projected representatives became merged in the figure of God. The conception of internal objects thus enhances our understanding of Schreber's illness and the paranoid process in general, and overcomes many of the limitations of an explanation couched exclusively in terms of the economics of libido.

How far Freud is justified in inferring the existence of 'an intimate (perhaps invariable) relation' between paranoia and the homosexual wish phantasy is an interesting question. That a close association exists between them is certainly borne out by psychoanalytical observation; but it is by no means equally clear that the causal connexion is as simple as Freud's study of Schreber's case would appear to indicate. Freud's observation that 'every human being oscillates all through his life between heterosexual and homosexual feelings' can hardly be regarded as satisfactory, since it takes little account of the mental factors which, from the psychological standpoint, must be assumed to determine such a presumptive oscillation. There would appear

to be ample evidence that, apart from the narcissistic factor involved, the homosexual object-choice is determined by a rejection of the heterosexual parent; and even the narcissistic factor may be interpreted as due, not to any fixation at a presumptive narcissistic stage of development, but to a withdrawal of libidinal interest from the heterosexual parent as a bad object in the outer world and a defensive resort to autoerotism mediated by masturbation. Such a resort to autoerotism in itself predisposes to a homosexual object-choice; but it cannot be ignored that rejection of the heterosexual parent favours a homosexual attachment to the other parent. If subsequently the homosexual parent assumes the role of persecutor, this is largely because, faced with the alternatives of persecution by a heterosexual parent or persecution by a homosexual parent, the child chooses the latter as less intolerable. Nevertheless, persecution by the heterosexual parent is found to persist at a deeper level; and there is evidence to the effect that, in conformity with this interpretation, the constitution of the classic Oedipus situation involves a displacement on to the homosexual parent of aggression originally directed against the heterosexual parent, who is not only the more important libidinal object, but also the object of greater hatred in the primal scene. It is thus that the really 'bad object' in the drama of *Hamlet* is undoubtedly Hamlet's mother. As regards Schreber's mother, all that is known about her is that she receives casual reference in the *Memoirs*, and that she was alive at the time of his illness (a fact of which Freud was unaware); but, if the mother-imago is conspicuous by its absence in Schreber's phantasies, this may be a measure of his mother's importance rather than otherwise. Indeed her importance is not only concealed, but also demonstrated by his obvious identification with her—a phenomenon to which Freud fails to attach the importance which it deserves.

Another question of interest is the extent to which paranoia is associated with anal sexuality. In terms of the theory of libidinal

development formulated by Abraham in 1924 (Abraham, 1927, pp. 488–90) and since adopted into the body of generally accepted psycho-analytical theory, paranoia is dependent upon a fixation in the earlier anal phase. This theory was not, of course, available at the time of Freud's study of Schreber's illness. Consequently, no special association between paranoia and anal sexuality is suggested by Freud. At the same time, retention of faeces is mentioned as one of Schreber's symptoms in Dr Weber's Report; and Freud draws attention to a somewhat obscure passage in the *Memoirs*, in which Schreber speaks of 'miracles' producing in him the urge to defaecate 'at least several dozen times' a day, and of attempts to prevent his satisfying this urge—all with the aim of destroying his reason. In the passage in question Schreber also records that, when he does succeed in defaecating, the act 'is always combined with a very strong development of soul-voluptuousness'. This is in conformity with the general observation that the presence of highly charged anal trends is a characteristic feature of paranoid individuals, female no less than male. It by no means follows, however, that a fixation at the presumptive earlier anal stage provides the only possible explanation of this feature; and, as already indicated, the present author has formulated a revised theory of libidinal development in terms of which 'the paranoid technique' represents one of the four defensive techniques which become available to the ego during 'the transitional stage'. In the light of this theory, pure paranoia (as distinguished from paranoid schizophrenia) would, from the purely psychopathological (as against legal) standpoint, fall into the category of a psychoneurosis; and the fact that, outside the localized sphere of his delusions, the paranoiac is well orientated to reality would appear to support such a view. Be this as it may, the fact that the paranoid technique is largely modelled upon the act of anal expulsion is beyond question; and it must be recognized that the act of defaecation by its very nature readily provides a model for

the aggressive projection of bad internal objects, especially during the period of excretory training—a procedure which lends itself to become the focus of interpersonal conflicts with parental figures. Interesting in this connexion is a sentence in the *Memoirs*, in which Schreber speaks of ‘the symbolic meaning of the act of defaecation, namely that he who entered into a special relationship with divine rays as I have is to a certain extent entitled to sh... on all the world’;* and it is not difficult to understand how the paranoiac who seeks to dispose of his bad internal objects by projecting them into the outer world after the defaecatory model should, like Schreber, achieve nothing more than the substitution of an external for an internal persecution.

DISCUSSION OF THE COMMENTARY BY MACALPINE AND HUNTER

The recent publication of Schreber’s *Memoirs* under the editorship of Macalpine and Hunter is undoubtedly an important event. As noted by the editors, Freud’s study of Schreber’s illness has had the effect of imparting a classic significance to ‘the Schreber case’ in psychoanalytical literature; and yet, owing to the inaccessibility of the *Memoirs* hitherto, subsequent writers have taken no account of the sources of Freud’s study apart from the excerpts quoted by Freud himself. This fact, according to Macalpine and Hunter, has led to an uncritical acceptance of Freud’s formulations on the part of psychoanalytical writers, except in so far as the influence of Melanie Klein’s conceptions is concerned. This influence is restricted by Macalpine and Hunter to Klein’s stressing of the importance of the part played by aggressive, in addition to libidinal, factors; but her formulations regarding internal persecutors and their projection must be regarded as registering a still more important advance upon Freud’s theory.

For two reasons it would be a major task to

* Melanie Klein has drawn attention to the importance of phantasied attacks upon the mother’s body with faeces (Klein, 1948, p. 236).

consider the criticisms of Freud’s theory of paranoia, and of the psychoanalytical theory of the psychoses in general, submitted by Macalpine and Hunter in the Introduction and Discussion which accompany the text of the *Memoirs* which they edit. In the first place, these collaborators are sceptical of accepted classifications in terms of which a distinction is drawn between, for example, paranoia proper and schizophrenia. The difficulty thus raised can only be met in the present context by an insistence upon the distinction between the schizoid process itself and the paranoid defence, which imparts a specific character to the presenting syndrome in proportion to its success in controlling ‘the return of the repressed’. In the second place, there is the attitude of Macalpine and Hunter to what they describe as ‘the myth surrounding the nature of the transference, its central position in the technique of psychoanalysis and the theory of mental illness based upon it’. Their views on this subject are briefly to the following effect: Psychoanalytical theory was built up on observations of transference phenomena in the analytical session. The classic technique is one in which it is unjustifiably claimed that the patient’s reactions are purely spontaneous, and the analyst so passive as merely to provide a screen upon which the patient’s reactions to his original objects are reflected. The transference neurosis which develops during analysis, although not the purely spontaneous phenomenon which it is claimed to be, provided the basis for Freud’s theory of the transference neuroses, or psychoneuroses. Concepts designed to explain the transference neuroses, involving as they do interpersonal relations (e.g. the Oedipus situation), were then inconsistently and illegitimately applied in explanation of the narcissistic neuroses, or psychoses, in which the patient regressively withdraws libidinal interest from outer reality and the persons in it, and directs it towards himself.

The statement that psychoanalytical theory has been built up on the basis of transference phenomena in the analytical session is not

wholly true, since (a) transference occurs outside the analytical situation, and (b) not all the material produced in the analytical session is transference material. Nevertheless, the statement may be allowed to pass. It must also be recognized that Macalpine and Hunter are not wholly without justification in the criticisms which they pass on the conception that the role of the analyst in the classic technique is one of complete detachment. However detached the analyst may try to be, his personality inevitably makes an impression upon the patient and modifies the latter's reactions; and there can be no disputing the fact that interpretation represents an active intervention on the analyst's part. It is also doubtful whether even the most ardent devotee of the classic technique is as detached in practice as he is in theory; and there is an increasing number of analysts who actually consider it undesirable to be as detached as the classic technique appears to demand. Nevertheless, under all conditions transference occurs; and, if the analytical session is regarded as an experimental situation involving a two-person relationship between patient and analyst, its influence and significance can be scientifically assessed (see Ezriel, 1951, pp. 30-4).

As regards the doubts expressed by Macalpine and Hunter on the legitimacy of carrying psychoanalytical concepts over from the field of the psychoneuroses to that of the psychoses, these are not without some apparent justification in view of the rigid distinction originally drawn by Freud between 'the transference neuroses' and 'the narcissistic neuroses'. This rigid distinction must be regarded as having originated in the practical difficulties experienced by Freud in the treatment of psychotics in the earlier days of psychoanalysis—difficulties which are not necessarily insurmountable, as the recent work of John Rosen with schizophrenics well illustrates (Rosen, 1953). The distinction has, however, been perpetuated by the theory of libidinal development in terms of which the capacity for object-relations is only achieved

after the individual has passed through an original autoerotic and an intermediate narcissistic phase. In the view of the present writer, what is really at fault is not the carrying over of concepts from the field of the psychoneuroses to that of the psychoses, but the theory of libidinal development which denies that the individual is inherently object-seeking from the beginning. His own revised theory of libidinal development is designed to implement this view; and Melanie Klein's antedating of the Oedipus situation to infancy (Klein, 1948, p. 202) represents a movement in the same direction. The views of Macalpine and Hunter themselves would appear to share the unsatisfactory features of the classic theory of libidinal development in terms of which the individual is regarded as originally autoerotic; for their studies of psychosomatic and psychotic illnesses have led them to conclude that these conditions 'originate in disturbances of internal reality, in the patient's relation to himself'. 'The primary disturbance', they claim, 'is not interpersonal, but intrapersonal', albeit 'such intrapersonal disturbances may secondarily affect interpersonal relations and lead to an altered relation to external reality'. The psychoanalytical conception that renunciation of reality is the characteristic feature distinguishing the psychoses from the psychoneuroses is accordingly described by them as a 'faulty notion'. What they fail to recognize, however, is that the 'internal reality' of which they speak is really an endopsychic world of object-relations. This world is built up by means of introjection on the basis of the child's experiences of his libidinal objects interpreted in terms of his own needs—above all experiences involving frustration and deprivation; and its foundations are laid in infancy. It is to the influence of this endopsychic world of object-relations upon the reactions of the ego that the origin of both the psychoneuroses and the psychoses must be ascribed; and it is thus no less appropriate to apply concepts based upon transference phenomena to the psychoses than to the psychoneuroses.

The main objection raised by Macalpine and Hunter to Freud's interpretation of Schreber's illness is that he 'applied to Schreber's illness the criteria of a neurosis in the classical psychoanalytic sense, and discussed it on the basis of libidinal conflict' and that 'furthermore Schreber's illness is explained by Freud on a genital level only, centring on the inverted Oedipus situation'. What, according to them, Freud failed to see was 'that Schreber was preoccupied with... creation and procreation in the primitive, presexual sense which precedes knowledge of sexual reproduction both in the history of the individual and of mankind', and 'which forms the basis of all primitive religions'. They also draw attention to the fact that, although Freud referred to 'the enormous number of delusional ideas of a hypochondriacal nature which the patient developed', and stated 'I shall not consider any theory of paranoia trustworthy unless it covers also the *hypochondriacal* symptoms by which the disorder is almost invariably accompanied', nevertheless, he leaves these symptoms almost wholly out of account in his explanation of Schreber's illness. This is certainly surprising, since Schreber's previous illness was described by Dr Weber as 'a serious attack of hypochondria'; but doubtless Freud was here influenced by his unfortunate conception of 'the actual neuroses' among which hypochondria was included (Freud, 1894). Melanie Klein's conception of internal persecutors has, however, enabled the gap left in Freud's explanation of paranoia to be filled; for, as she has pointed out, 'the pains and other manifestations which in phantasy result from the attacks of persecuting objects within against the ego are typically paranoid' (Klein, 1948, pp. 292-3). In the view of Macalpine and Hunter, by contrast, 'Schreber's hypochondriacal symptoms express primitive, pregenital procreation fantasies in the form of body hallucinations'—the term 'procreation fantasies' being employed specifically 'to stress the absence of mature sex drives, whether homosexual or heterosexual'. These procreation phantasies,

in their view, constituted the real nucleus of Schreber's illness; and they regard the homosexual wish phantasy as merely a secondary development. 'Schreber fell ill', they write, 'when a wish fantasy that he could, would or should have children became pathogenic. Simultaneously he became doubtful of his own sex... His psychosis was a quest to procreate; speculations became reality and were jumbled up in a cycle which embraced birth, life, death, rebirth, resurrection, life after death, transmigration of souls. All centred around the fundamental issue of creation and his own creative potentialities... Schreber pursued the quest "how can I a man be in the process of having or actually have children?" To live through the various possibilities was his psychosis.' In accordance with this view, what occasioned Schreber's illness was the frustration of the creative principle in him owing to the childless nature of his marriage (a factor also stressed by Freud)—his desire for a child having met with what he described as 'frequent disappointments' (? miscarriages), and the final disappointment being due, not to his own climacteric (another factor stressed by Freud), but to his wife's menopause.

This interpretation of Schreber's illness has its impressive side; and it certainly covers a wider range of the protean manifestations of Schreber's illness than does Freud's more limited interpretation. The conception of pre-genital procreation phantasies is, of course, very far from foreign to psychoanalytical thought; and Macalpine and Hunter therefore consider it 'remarkable that Freud does not even consider pre-genital fantasies'—especially in view of the fact that, discussing the infantile 'cloaca theory' of birth only three years before the appearance of his study of Schreber's illness, he wrote 'If babies are born through the anus then a man can give birth just as well as a woman. A boy can therefore fancy that he too has children of his own without our needing to accuse him of feminine inclinations. It is only his still active anal erotism at work' (Freud, 1908). However,

if Macalpine and Hunter have made out a case for their interpretation of the hypochondriacal (and presumably more schizoid) aspect of Schreber's illness, it must be recognized that Freud has also made out a case for his interpretation of its paranoid aspect. Perhaps it is not too much to hope that the two interpretations may be fruitfully reconciled in terms of a conception which neither Macalpine and Hunter nor yet Freud, strangely enough, take into account in their discussions of Schreber's case—viz. that of the primal scene, which is not only closely associated with procreation phantasies, but also with phantasies in which the parents present themselves as persecutors. So far as Freud is concerned, it is true that, in a subsequent paper on a case of paranoia, he does refer briefly to the primal scene as a factor in determining the patient's illness (Freud, 1915); but he does not develop the theme in any systematic manner. In the view of the present writer, however, it is this theme that provides the most important clue to an understanding of Schreber's illness.

THE PATHOGENIC SIGNIFICANCE OF THE PRIMAL SCENE

It is the experience of the present writer that the greatest resistance encountered in psycho-analytical practice is that directed against revival of the primal scene, whether actually witnessed or only inferred during childhood. This resistance may assume quite fantastic proportions. Thus, the present writer has a female patient who, whenever any approach to the primal scene is made during a session, immediately becomes (literally) paralysed and aphasic, and passes into a narcoleptic state. Interestingly enough, this same patient became symptom-free for several weeks during a temporary cessation of analysis after dreaming about the primal scene in a barely disguised form. It may be added that she slept in her parents' bedroom until the age of eight. There is another female patient who, when pressed on one occasion to enlarge on some material relating to the primal scene, remarked 'When I try to think of Mother and Father in bed

together, waves of sleep come over me like waves of the sea'. It is also the considered opinion of the present writer that the horror of the primal scene is more basic than the horror of incest, and indeed that the latter is largely derived from the former. Thus there is a married female patient whose intercourse with her husband is accompanied by barely disguised incestuous phantasies which have proved to represent enactments of the primal scene, but who evinces the utmost resistance to reviving the primal scene itself. There also come to mind two patients, one male and one female, whose phobic anxieties are unquestionably focused upon the primal scene, and who both display hypochondriacal tendencies. Of these two patients, the female slept in a dressing-room off her parents' bedroom with the door open until the age of ten. The male slept in his parents' room until the age of six, when another child was born; and thereafter his mother made him sleep in the same bed with her until the age of fifteen with a view to preventing his father having intercourse with her. All the five patients mentioned, it should be noted, are current patients; and they represent half of the current clientele of ten. There is another current patient in whose case the primal scene has been revived, but for whom it still retains the utmost horror. This patient recently had a dream which may be abbreviated into the following form:

I was returning to a country house which appeared to be my old home. The grounds were full of people who were attending a Scottish Nationalist demonstration. I tried to slip through the crowd without being noticed in case, if they noticed me, they would disperse. Here and there among the crowd I saw a few young men standing naked like statues. They seemed to be symbols of the Nationalist movement; and I paid particular attention to their penises. Then I was in an upper room in the house: and I heard the committee of the Nationalists plotting revolution and murder in the room below. I was terrified to move in case I drew attention to my presence; for I realized that, if they knew that I had heard them, they would either compel me to join the movement or else kill me.

This dream was immediately associated by the patient with the primal scene; and his associations revealed a fact of the utmost interest. The pleasurable excitement of the primal scene was focused upon the naked men and their penises, whilst its horror was localized in the plotting of the Nationalist committee. The patient, it should be mentioned, has a horror of sexual intercourse (which for him means participation in the primal scene), and, although not a practising homosexual, has overt homosexual leanings. Homosexuality represents for him a means of enjoying the excitement of the primal scene in a masturbatory manner, whilst denying the scene itself; and the horror of the primal scene is bound up with his sadistic attitude towards his mother as a monster of infidelity towards him—his previously stressed hostility towards his father proving to be largely a displacement of his hatred of his mother.

The case just quoted is relevant to the case of Schreber. Schreber's homosexuality, at first severely repressed and later barely disguised, represented a means of denying the primal scene and his hatred of his mother as the more significant participant in his eyes, whilst enjoying the sexual excitement which it provoked in him; and his adoption of a female role, involving as it did an identification with his mother, served a similar purpose. The same may also be said of the various other procreative phantasies which he entertained, and to which Macalpine and Hunter draw attention, viz. 'as a man, by being changed into a woman, parthenogenetically, by divine impregnation and self-impregnation', and last, but not least (in Schreber's own words) 'parentless generation, spontaneous generation'. The last of these alternatives was completely ignored by Freud; and yet it would appear to provide the real clue to Schreber's illness. For what more absolute denial of the primal scene could there be than 'parentless generation'? And it cannot escape observation that in the comprehensive list of Schreber's procreative notions provided by Macalpine and Hunter the one form of pro-

creation conspicuous by its absence is normal sexual intercourse between a man and a woman, viz. the primal scene. A quotation from one of the last pages of the *Memoirs* will enable Schreber to speak for himself on this point—'When I speak of my duty to cultivate voluptuousness, I *never mean any sexual desires towards other human beings (females) least of all sexual intercourse*' (original italics). In the light of these considerations, some insight may be gained into a mystery which Freud left unsolved—viz. that of the precipitating factor in Schreber's illness. His childlessness, which undoubtedly played a part, must be regarded as a predisposing, rather than a precipitating, factor; but it can hardly be a coincidence that the onset of both his illnesses occurred just when he was faced with the prospect of himself assuming the role of a potent father-figure—in the first case that of a Member of Parliament, and in the second that of *Senatspräsident*. The assumption of such a role must have signified for him a participation in the primal scene, on the basis of an identification with his father, calculated to mobilize his sadistic hatred of his mother, and thus, from the infantile standpoint, to threaten destruction of the world. His final solution in terms of becoming a woman for God provided him at once with a relatively acceptable means of cryptic participation in the primal scene and a means of making restitution to his mother, whom he wished to destroy for what seemed to him her faithless adultery with his father.

A final note on a phenomenon which Macalpine and Hunter describe as 'an invariable feature of schizophrenia', viz. that 'schizophrenics regularly are in doubt about the nature of their sex...speak of sexual transformation, and live through pregnancy and birth phantasies', which 'centre around bowel function or the interior of the body' and are commonly associated with 'delusions of poisoning and refusal of food'—all of which features were present in Schreber's case. The doubt entertained by schizophrenics and, for that matter, also by schizoid personalities,

regarding the nature of their sex is a phenomenon to which John Rosen, for one, has drawn particular attention (Rosen, 1953). It is, however, not so much a 'doubt about the nature of their sex' as a doubt as to what sexual role to adopt; and, in the experience of the present writer, this doubt is one which arises, not owing to the presence of any inherent bisexuality, but owing to uncertainty over identifications in the primal scene. Such a doubt is a prominent feature in the case of one of the present writer's current patients not hitherto mentioned, a markedly schizoid personality, who, although a married man with a family, is subject to homosexual dreams, commonly about intercourse with one of his own sons. This patient's conception was a 'mistake' from the point of view of his mother; and, with a view to safeguarding herself against the risk of another such 'mistake', she made him 'sleep between' her and her husband in his early childhood. She also brought him up in such a manner as to convey to him the impression that she not only disapproved of his being a boy, but actually wanted him to be a girl. His anxieties thus became largely focused on the anomaly constituted by the fact that, whilst he was expected to behave as a girl, he was the possessor of a penis. These anxieties were increased by the fact that his brothers teased him by saying that he made water, not through his penis like a boy, but 'through his side' like a girl; and it is, accordingly, not surprising that in later life he experienced difficulty over urinating in public lavatories. The doubt as to his sexual role thus engendered precipitated a crisis when he was sent to school. Having been brought up as a girl attached to his mother, and having repressed his male sexuality in order to conform to his mother's requirements, he found

himself lacking any role at all in a community of boys, and consequently felt completely mystified. In conformity with this fact he displayed, when he came for psychoanalytical treatment, that air of mystification which is so characteristic of schizoid personalities.* After attending school for a few days, he at first refused further attendance; and, when eventually he resumed attendance under coercion, he did so 'as an automaton, as a dead child'—in a state of schizoid detachment characterized by repression of affect. This reaction of extreme detachment was repeated later in life when it became necessary for him to enter a hospital. When, however, a second admission to hospital was advised, his original anxieties over going to school were revived in acute form, and he at first refused to go. Then, when, as in the case of his going to school, his refusal was eventually overcome, he passed into an acute confusional state. Behind all these reactions there undoubtedly lay a profound doubt as to his sexual role; and this doubt was focused upon the primal scene as represented by his having been made to sleep between his parents. It may be reasonably inferred that a similar doubt, focused upon the primal scene, constituted the central pathogenic factor in the case of Schreber, and that both his adoption of a female role and the development of his homosexually coloured delusions represented an attempted solution of his conflict.

* A similar air of mystification was, interestingly enough, displayed by a former female patient of the present writer, with whom her father had repeatedly committed incest; and Jessie Sym, a colleague who was formerly the medical officer of a Magdalen Institution, has recorded that this air of mystification is a characteristic feature of girls with whom incest has been committed (personal communication).

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HINJRA AND JIRYAN: TWO DERIVATIVES OF HINDU ATTITUDES TO SEXUALITY

By GEORGE MORRISON CARSTAIRS*

It is notoriously difficult to recognize neurotic behaviour among the members of an unfamiliar culture. Not only is it necessary to distinguish between peculiarities of conduct which are socially acceptable and those which are regarded as morbid: semantic difficulties also present themselves—the concept of neurosis itself has to be re-examined. In the process, the observer may come to realize that his own tacit assumptions about normality and abnormality in personality development have been partly determined by prejudices peculiar to his own society, and even to his allegiance to a minority group within that society. This realization in turn compels a discrimination between the biologically rooted, relatively universal elements in personality and those which are progressively more circumscribed in their application, as Kluckhohn & Mowrer (1944) and Linton (1948) have so clearly demonstrated.

The findings of social anthropology are challenging and stimulating to psychology as to other fields of thought because they compel a reconsideration of accepted values and hypotheses.

One of the earliest examples of this cross-fertilization of theory is Malinowski's attempt to test Freudian hypotheses against what he knew of the intimate family life and the traditional mythology of the Trobriand islanders. His main argument, that the Trobriand Oedipus complex must have the mother's-brother and not the father as its central figure, was remarkably ingenious. It failed to carry conviction, chiefly because Malinowski's acquaintance with psychoanalysis was a bookish one; his discussion of the Trobrianders' phantasy life remained academic in spite of his rare

understanding of their culture, because he lacked the technique necessary to recognize 'deep' psychological material in his informants' talk. Had he been able to do so, his argument would have been much more telling: but his thesis might not have been the same.

On the other hand, in the same volume Malinowski was able to challenge Freud's assumptions as to what was the normal sexual education of a European child, and here he spoke with the authority of his own recollections of childhood in the Polish countryside.†

This observation has received abundant verification with the publication of the Kinsey studies (1948), which have emphasized the great differences in sexual mores existing in members of different social classes in the same country. These contrasting attitudes towards sexual behaviour are already apparent in boys of three and four years of age, and 'exceedingly few males modify their attitudes on sex or change their patterns of overt behaviour in any fundamental way after their middle teens' (1948, p. 446). Kinsey found that social class was more significant than religious affiliation in determining sexual behaviour (p. 447).

The gulf which Kinsey revealed between the sexual attitudes and practices of college-educated and elementary school-educated males in the United States of America is presumably still greater in England where class distinctions tend to be more marked. There is also room in English society for a wide

† 'My personal knowledge of the life, customs and psychology of Eastern European peasants has allowed me to ascertain deep differences between the illiterate and the educated classes of the same society as regards the mental attitude of parents to children and vice versa.' B. Malinowski (1927), p. 14; see also pp. 51-4.

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range of acceptable eccentricity. For example, one might consider the following pronouncement made by a judge in 1954. The quotation comes from a Sunday newspaper with a circulation of over four million: "One can well understand those people who believe that intercourse is wrong except where children are concerned", the judge said. "That is a widely held and respectable view." He added that the husband believed that intimacy was repellent, unpleasant and something to be endured in order to have children' (*News of the World*, 21 November 1954).

It is therefore with a consciousness of our own diversity of attitudes towards sex that we must turn to the consideration of the attitudes shown by members of another culture. Nevertheless, Kinsey does supply a number of hard facts which can serve as a basis of comparison in respect of the two aspects of Hindu sexuality which are described in this paper, namely male homosexuality, and impotence.

He finds that 37% of post-pubertal American males have experienced orgasm in homosexual encounters. If only those males are considered who remained unmarried up to the age of 35, the proportion rises to 50%. On impotence he is less informative, because for his purposes the male sexual act is regarded as being completed whenever ejaculation has occurred. This qualifies his sweeping statement that 'failures to achieve climax are almost never found in married males in intercourse with their wives' (Kinsey, 1948, p. 323).

A COMMUNITY OF HIGH-CASTE HINDUS

For eleven months of the year 1951, the writer and his wife lived in a large village in the formerly Maharajah-governed State of Mewar, in Northern India, in order to carry out research in the personality development of Hindus belonging to the three highest caste-groups found in this region.* The area of

* These are the Rajputs (warriors and landlords); Brahmins (priests and scholars); and Banias (merchants and money-lenders).

Rajasthan was selected because it was the writer's birthplace. Its villagers had been among the companions of his childhood, and their variety of Hindustani had been his first language. Mewar was chosen from among the other divisions of Rajasthan because for historical reasons it prided itself upon its religious orthodoxy and political conservatism. Finally, it was decided to concentrate upon personality studies of members of the high castes because among them adherence to traditional Hindu values is stricter and more explicitly inculcated than in the rest of the community. In India, no less than in the West, a diverse and stratified society has given rise to many subvarieties of conduct and belief, but there, as here, the educated minority sets the norm of culturally approved behaviour which the wider community accepts in principle, even though their own daily practice (endorsed by the sanctions of each subgroup) may differ from it considerably.

In studying this extremely articulate social *élite*, it was hoped to isolate in relatively pure culture some essentially Hindu emphases in interpersonal relations and in the characteristics of their personalities. Observations consisted of a series of prolonged individual life-histories, supplemented by participation in the life of the village community—to whom the writer offered his services as a medical practitioner, and the resources of his box of Western medicines. The following observations on attitudes to homosexuality and impotence are drawn from interviews with individuals, from notes of daily events in the village, and from details of cases seen in his makeshift consulting-room in the bazaar.

THE HINJRA

In the village of Deoli, homosexuality was vigorously denounced. Informants insisted that it was utterly abhorrent to them. They denounced adultery also, but with this difference, that many informants admitted to it and were able to discuss the subject freely. No one admitted to homosexual practices,

although several of them accused others, and in a few cases described the experience of having been the object of homosexual advances—advances which they indignantly rejected. This was clearly a topic which was charged with strong feelings.

In spite of these repudiations homosexuality is undoubtedly practised in secret in this, as in all the other large villages and towns of Rajasthan. One can say this with confidence because of the presence there of a class of professional male prostitute, the *hinjra*. These *hinjras* adopt a parody of women's dress, mimic women's gestures and turns of speech and from time to time perform lewd imitations of women's singing and dancing. They are held in the utmost detestation, classed among the untouchable sweeper-caste; and yet they have their patrons who either visit or summon them under cover of darkness.

The *hinjra* is one of the group of beggar castes to whom alms must be given at certain occasions, such as at a wedding feast or at harvest time. But whereas the other beggars are given their alms without demur, the *hinjra* is always abused and told to go away. He persists in importunity, using obscene language and performing antics of increasing shamelessness until he threatens the people of the house with the ultimate sanction, that of uncovering his anus and genitals and exposing them to the public gaze. This enormity is quite unbearable. The threat of it is enough to force his unwilling benefactors to throw a few coins at him from a distance and tell him to be off before they have him beaten.

The *hinjra* is believed to be always a passive homosexual, and popular legend has it that when a man becomes a *hinjra* he cuts off his penis. 'It is part of their *dharm* (their code)', said one of my informants: 'If they don't do that, they are not true members of that caste.'

The vehemence with which homosexuality is denounced in this community, at the same time as it is secretly practised, suggests that it arouses strongly ambivalent feelings. In their daily life, Hindus of Deoli involuntarily revealed attitudes to this theme which contrasted

with its verbal renunciation. Young men were constantly forming ardent, though ephemeral, friendships, and while these lasted they would walk hand in hand like lovers. In this society, women were kept strictly secluded. The slightest exhibition of interest between men and women was interpreted as evidence of a lascivious relationship, and yet at the same time gestures indicative of sentimental and physical intimacy between men of the same age passed unremarked.

It is significant that these male partnerships to which this community turned a blind eye were always among peers. Hindu society is firmly patriarchal. The father and his heir-apparent, the elder brother, command implicit obedience and respect. There is no possibility here of familiarity or tender feelings. Relationships between a man and his father are governed by subservience on the one side and the fulfilment of formal obligations on the other. More intimate feelings, both positive and negative, are denied expression. The nearest any one of my informants ever came to describing a personal relationship with his father was when a young Rajput, himself the father of two children, said: 'When I was a boy, my father was very strict, but now he sometimes even speaks to me quite nicely.'

So long as his father is alive, each man continues to live within the household of the extended family, bringing his wife to live under his paternal roof; but it is an essential part of the respect which he owes to his father that he must deny his own sexual life. In his father's presence, a young man must ignore his own wife. If he wishes to address her, he must do so in the third person, through his mother. Similarly, it is improper for a man to show affection for his own children in his father's presence. A Bania youth who had a boy of eighteen months explained that even in the privacy of his own room he did not like to fondle his infant: 'If I did, he might get into the habit of running to my knee in the shop, and that would not look right.'

In this, as in many other respects, the Hindu definition of 'right conduct' emphasizes re-

straint of impulse as the prerequisite to achieving a good relationship with the father. Repression of sexuality is of the first importance, but by extension any expression of feeling (whether of anger, affection, or mirth) is also prohibited. Feelings can be expressed among peers—all younger brothers together—or in secret illicit love affairs. Marriage is quite a different matter. It is regarded as one of the obligations of a dutiful son. A man's bride is chosen by his father (or the head of the joint family) and their relationship consists in the acceptance of formal mutual obligations. In this way a man is able to propagate his line without asserting his sexual rivalry with his father. The castration threat is lifted, and sexual relations in marriage become possible by the expedient of denying the young man's choice, and indeed his emotional involvement, in this relationship. It is easy for a father to condone—by ignoring—his son's venal love affairs, but it is unthinkable in this society for a man to marry the girl he loves, or to reveal a passionate fondness for the girl he has married, because this would imply an impious defiance of his father's sexual supremacy within the family. This extreme emphasis upon the Oedipal situation pervades many aspects of Hindu social life, and is even reflected in their attitude towards crimes of violence (Carstairs, 1953).

That latent homosexuality should co-exist with an intensification of the Oedipal conflict will seem perfectly natural to the psycho-analytically trained reader, but he will also expect to find confirmatory evidence of this connexion in the Hindu's attitudes towards father-figures in their religious and phantasy life.

There are in fact two dominating male gods in the pantheon of village worship in Deoli: Shiva and Vishnu. The worship of Vishnu serves as an outlet for ardent positive feelings, which are sternly repressed in everyday family life. He is portrayed as a man of extremely effeminate beauty, and he is worshipped in his several incarnations (but especially in that of Sri Krishna) with ecstatic devotion. There is

no harsh austerity in this cult; although strict vegetarianism is enjoined, this is done not to mortify the flesh, but out of compassion for all living creatures. In his incarnation as Rama he is the ideal husband as well as a paragon of Hindu chivalry; as Krishna, the great lover, he is portrayed as a girlish, seductive and yet all-powerful youth. His devotees seem to identify themselves at times with him as he makes his amorous conquests, at times with the *gopis* (the girl cow-herds) who are overcome with pleasurable anticipation at his approach. This particular father-figure is seen as a homosexual lover.

There was only one occasion during this year in Deoli when homosexual interests were given almost undisguised expression. This was during an open-air performance of the epic Ram-Lila. The actors were all men, and the star of the troupe played the part of Sita, the young wife of Rama. The audience cried out in praise of his beauty, his graceful gestures, his delicate arms, and the show was stopped for encores whenever he had occasion to sing or dance. Here was a 'straight' transvestite performance, in contrast to the gross parodies of the *hinjras*, and because it was sanctioned by its idealized religious context, villagers could openly express their appreciation of the young man's physical charms. This is a clear instance of what Margaret Mead describes as 'the return of the repressed'.

In decided contrast, austerity and dread are emphasized in the worship of Shiva, or Mahadev, the Great God, consort of the ubiquitous demon-mother Mataji (known sometimes as Kali, the Black One, sometimes as Durga, the Unapproachable). Shiva's emblem is a simple phallic symbol, a stone set erect in a circle, or *yonis* which represents the vagina of the goddess, the seat of her *shakti*, her primordial power. *Shakti* is one of the many names of the demon-mother. The worship of Shiva represents one mode of escape from all the anxieties and imperfections of birth and re-birth into the finite world; and this escape is effected by means of a progressive

obliteration, first of all sexual promptings, and then of all the minor distractions caused by physical appetites, and indeed by sensory perceptions of any kind. This alone enables a man to achieve release from *maya*, the illusory world of the senses. Shiva in this aspect is the inspiration of all world-renouncing ascetics and followers of yoga; but this is not his only form. He is also present, in the vicinity of every village shrine to the Goddess, as a stone or image representing Bhairava, the Terrible One. In this form he is even fiercer and stronger than the Mataji, although he appears to be her servant rather than her consort: unless he is placated with gifts, and with the most abject subservience, he can destroy men utterly.

These aspects of Lord Shiva represent the father as he is known to consciousness: a figure of power whom it is perilous to oppose, with whom a good relationship can ultimately be reached only through a mutual renunciation of sexuality. Unconscious wishes become apparent, however, when the course of asceticism is followed to its extreme conclusion. It seems at first that the triumph of the 'ascetic escape' from anxiety involves a complete repudiation of the female. Only men can achieve *samadhi*, or apotheosis. It sometimes occurs that a holy man, a *sannyasi*, after long practice of austerities and profound contemplation, comes to know that he is near his goal. He may then be able to announce the precise time at which his spirit will achieve *moksh* or release from the bondage of re-birth. When this moment approaches, he sits cross-legged, oblivious to his surroundings in a trance-like state, and is lowered ceremoniously into a hole in the earth, which is then filled in.* Hindus say that at the moment of his *samadhi* his spirit becomes re-united with the creative spirit of the universe, and his body remains incorruptible.

* In January 1950, in northern Mewar, the writer took part in an all-night ceremony of hymn-singing in honour of Maharamji Regar, a holy man who had 'taken *samadhi*' there only three months previously.

Regarded symbolically, the long assiduous discipline of yoga can be seen as a straining back and back, shedding first sexuality, then all other ego-achievements until the renunciation of the real world is complete: the 'arrived' *sannyasi* has regressed not merely to infancy, but beyond, to a simulacrum of his prenatal state when he was literally one with his creator. It is therefore fitting that, having reached this stage, he should be lowered into a womb of earth.

In this heroic mode of escape from carnal life the Oedipal threat has no force. Father and son are at one in repudiating adult sexuality, but they do so at the cost of progressively giving up all their object-relations in the search for the lost paradise of the prenatal state.

The principle of *tapas* or mortification of the flesh (an important element in yoga) is that a man's 'real' self—the element of god within him—is strengthened in so far as he succeeds in breaking free of the distractions of sensuality, and especially of sex. This is regarded as the supreme obstacle to spiritual advancement. During the course of the year's observation, it became apparent that the Hindu informants' attitudes towards sexuality influenced their secular as well as their religious life to an important extent, but for a long time this observation was obscured by the writer's own cultural, and particularly his medical, outlook. Here was an instance of the practical, as distinct from the semantic, difficulties referred to at the beginning of this paper.

JIRYAN

In his daily practice of medicine in the village, the writer was guided by his previous study of the varieties of infection and of deficiency disease which were most likely to be encountered in this region. In many cases, diagnosis was not in doubt, because the symptoms and signs of the illness were conspicuously exhibited. In others, this was not the case. The latter patients complained of vague malaise, wasting and loss of energy:

they would beg for a 'good, strength-giving medicine', or preferably an injection, to restore their vigour.

The writer would examine them physically for signs of chronic infection, anaemia or malnutrition, and seldom failed to discover something of the kind. In a few instances his medicines did appreciably help them—putting a stop to recurrent malarial rigors, or relieving them of round-worms—but more often they conveyed only a temporary benefit, or none.

As not infrequently happens, it was a patient who enlightened the physician.* One day a powerfully built Hindu farmer entered the writer's office in the bazaar and asked for medicine to overcome his serious weakness. It was impossible to detect any sign of physical illness, and by his own account he worked strenuously in his fields; and yet he protested most insistently that his weakness was gaining on him day by day.

Belatedly, one realized that there might be more to this complaint than mere bodily disorder. He was asked to talk on, and soon he explained that the real trouble was that his bodily store of semen had curdled and gone bad. For many months, the 'spoiled semen' had been leaking away in the form of a white discharge which appeared in his urine. He assumed that every doctor must know that *jiryan*, a loss of semen, is the commonest cause of bodily weakness.

After this, every patient who complained of 'general weakness' was encouraged to talk on, and in the great majority of cases a similar story was unfolded. In this way, the writer became familiar with a system of beliefs to which all of his informants subscribed. This concerned the making, storing and expenditure of a man's semen (*viriya*) in which resides his strength. Everyone knew that semen was not easily formed; it takes forty days, and forty drops of blood, to make one drop of semen;

* As Ernest Jones (1953) has shown, even Freud was indebted in this way to his patients, especially to one of the earliest, whose vigorous 'Don't interrupt!' helped him to formulate the technique of free association.

but the process was variously described. Hari Lal said: 'There is a fire in your stomach, whose heat warms the body, and everything you eat goes into two stomachs, solid food into one and liquids into another, and there they are cooked until they yield *ras*, and this in turn gives blood, and blood in time forms semen.'

Rajmal described four stomachs, in series, in which food is progressively digested until first blood, and then semen, is formed. Everyone was agreed on one point, that the semen is ultimately stored in a reservoir in the head, whose capacity is twenty *tolas* (6.8 ounces). Semen of good quality is rich and viscous, like the cream of unadulterated milk. A man who possesses a store of such good semen becomes a super-man. 'He glows with radiant health', said Shanker Lal. He excels all normal men in strength and stamina, both moral and physical. As an example, one was always told of idealized holy men, unlike those imperfect exemplars we had actually seen, whose life of celibacy and piety had brought them to this peak of condition.

Celibacy was the first requirement of true fitness, because every sexual orgasm meant the loss of a quantity of semen, laboriously formed. Here was another inescapable dilemma, because one's sons must be procreated, one's wife satisfied—hence the need to compromise, to restrict sex to a defined number of occasions. In order to make good the deprivations of sex life, certain rules must be obeyed. 'Cool foods' should be eaten, among them milk, butter, wheat flour, rice, sugar and most fruits; 'hot' foods, such as vegetable oil, maize and millet flour, unrefined sugar and strong spices should be abjured. It was noticeable that the 'cool' foods were the more expensive ones, whereas the 'hot' substances formed the staple diet of the indigent, low-caste majority of the population. Opinion was divided about meat, eggs and wines. Most Brahmins and Baniyas, and some pious Rajputs, declared liquor to be 'hot' and to be abjured, but the majority of Rajputs considered it fortifying if taken in small quantities,

regularly. Rajputs recommended meat and eggs, which the others would not touch.

It was not considered sufficient, however, merely to eat the appropriate diet in order to restore one's semen; nor was the sexual act regarded as the only way of losing it. 'Two things give rise to the loss of a man's semen', said Amar Singh: '*Badparhez* and *badpheli*—that is, eating what is wrong, and doing what is wrong.' Under the latter head he included not only sexual promiscuity, but every sort of violation of Hindu *dharm* such as mixing and eating with people of inferior caste; acting disrespectfully towards one's elders; drinking to excess; giving way to anger or to lustful thoughts, to fear or to excessive worrying. In all these cases, what happens is that a man's semen curdles and goes bad and can no longer be retained, issuing from him in the form of a thin, evil-smelling fluid. Consequently, any purulent discharge which seemed to come from inside the body was held to be 'spoiled semen', whether it came from the ears, eyes or nose, in the sputum or in the stool. Especial concern was directed to any discharge coming from the penis, which was invariably identified as semen; and yet there was at the same time a fairly general appreciation of the nature of venereal disease, both syphilis (*garma*) and urethritis (*sujak*), being known by name although often confused. Venereal disease was considered to be both an infection *and* an evidence of deterioration of one's semen.

What was much more striking than the cases of venereal disease (of which the writer had occasion to treat only sixteen during ten months in Deoli), was the pre-occupation which many seemingly healthy men showed with real or imagined spermatorrhoea (*jiryan*).

On reviewing notes taken in the dispensary at the end of the year, this was found to be the third commonest presenting symptom among male patients. It was outnumbered only by cases of malarial fever and of enteritis: but many of these also complained of *jiryan*. Out of the thirty-six high-caste informants with whom there were repeated interviews, twenty-five either believed that they

suffered from this complaint, or else described special measures which they adopted to counteract it.

A reflexion of this pre-occupation was found in a pharmacopoeia of Ayurvedic medicines presented to the writer by the village *vaid*, or Hindu physician. Out of thirty-nine proprietary preparations advertised in the end pages of this book, fourteen were recommended for spermatorrhoea. A similar emphasis can be seen in advertisements in the popular press in any Indian city.

In Western medical practice, spermatorrhoea is a rarity. On the other hand, anxiety centred upon impotence, nocturnal emission, or fear of venereal disease, is a not uncommon presenting symptom in psychiatric practice—but this anxiety is shown by a few neurotic individuals, burdened with the disproportionate guilt of an unresolved Oedipus complex, and not by the majority of the male population.

In order to understand these very real complaints of weakness, of wasting away of the bodily tissues (which looked unchanged to the corporeal eye) it was necessary that one's patients should communicate their sense of guilt at having broken the rules with regard to sex, commensality, and control of their feelings. As they did so, one was made aware of another dilemma; these rules were so uncompromisingly strict that anyone whose personality resisted the complete surrender of instinctive spontaneity, must sooner or later infringe them. The writer's informants acknowledged this by describing two types of ideal person, the unworldly religious devotee, and the practical man. Only the former could rise to the acme of physical and spiritual perfection. To the *yogi*'s undoubted ability to endure physical privation with indifference were added magical powers, such as the ability to practise levitation, to become invisible, to be present in the flesh in two places at once.

The ordinary man, involved in worldly commitments which he cannot bring himself to disregard, cannot aspire to this ideal unless in his old age. As Hari Lal said: 'Most people have to work and earn their food and keep

their passions alive.' The best they can hope for is to order their lives so that their acts of piety suffice to compensate for the inevitable wastage of soul-stuff and of semen.

The clue to this compromise lies in the words '*niyam se*'—'in proper measure'. Appetites may be indulged, feelings given an outlet, sexual relations experienced, provided always that they be subjected to a strict voluntary control: if that is observed, this situation is not too threatening, but the problem is to know what *is* the correct *niyam*. In the case of sexuality, everyone referred wistfully to the ideal of unbroken celibacy; or failing that, of sleeping with one's wife only once in a lifetime, as the father of the mighty Hanuman was said to have done. If you have sexual intercourse only once or twice in a lifetime, your children will be correspondingly robust. The due *niyam* for sex was variously quoted. Four informants claimed to have abjured sex altogether; the rest indicated their conception of the proper measure, and then complained how hard it was for human frailty to adhere to this ideal. As a mechanism of defence against anxiety, this attempt to confine sensuality *niyam se* too often let them down—hence the widespread pre-occupation with *jiryan*, which the writer would claim to be the commonest expression of anxiety neurosis among the Hindu communities of Rajasthan, and perhaps throughout India.

Jiryan has been described as a culturally conditioned neurosis. It may well be asked on what grounds these patients can be regarded as neurotic. Are they not simply conforming to a generally held local belief about the detrimental effects of sexuality? As Erich Fromm (1949) has put it, in referring to the Westerners' acceptance of mass-produced, stereotyped conformity and loss of individual spontaneity, is this not an instance of a 'socially patterned defect'?

It is regarded as a neurosis because it is not the only attitude towards sex which they display. It is possible for many Hindus, for most of the time, to regard sexual relations as a natural, god-given function: it is only when

their morale flags, and anxiety develops, that this syndrome comes to the fore.

The syndrome itself is culturally determined. As such, it resembles patterns of neurotic reaction, whose relationship to social attitudes was made clear by Linton (1953). For example, two generations ago it was still expected of a 'Lady' that she should swoon when she encountered an emotionally disturbing situation—and swoon she did. In the First World War, gross hysterical reactions were dignified with the title of shell-shock; and they were extremely common. In the Second World War, gross hysteria was no longer a socially acceptable form of illness: its primacy was superseded by anxiety states in all the Allied armies except one—the exception being the untutored partisans of Yugoslavia, who still expressed their states of demoralization in the classical forms of conversion hysteria.

It remains to be considered what features of life in Hindu society conduce to the formation of this particular syndrome of *jiryan*. The writer proposes to discuss these features under two heads: first, consciously formulated attitudes towards sex; and secondly, common male fantasies about women.

To the Western observer, there seems at first to be a curious mixture of frankness and prudery in the Hindus' treatment of these matters. Procreation and sex are discussed with great frankness by men, but only in the absence of other men of greater seniority. In other words, fathers and elder brothers can talk freely about sex, regardless of whether small children may be present and listening—as is the case in almost every conversation in an Indian village. A man can talk about his wife's most intimate bodily discomforts while she looks on, silent and heavily veiled.

These are further indications of the cardinal feature of Hindu family life (the dominating position of the male head of the household) which has already been discussed.

Outside of the household, relationships between the sexes are very limited indeed. Women wear long veils, and are expected to look demurely at the ground on the approach

of a man. A corollary of the fierce restraint on meetings between young men and girls is that every slightest encounter is interpreted as leading inevitably to sexual intercourse. The young men's dreams are frequently centred upon sexual adventures which are obtainable only with difficulty in reality. One young merchant, who spoke English, insisted on proffering his autobiography, which dwelt very candidly upon his dissatisfaction with his arranged marriage and his fear that his wife's excessive sexual demands upon him were responsible for his being so very thin and weak. He deplored the fact that he had no sister or girl cousin of his age in his extended family. 'Thus I have been debarred of the enjoyments of the company of the opposite sex. I rather now feel shy of talking to them—but in truth I have also no opportunity of contacting them. But after all, human nature is bound to be attracted towards the mysteries of the opposite sex. We do not like to practise adultery, etc., which we think to be the worst crime. But still, just to please ourselves—to entertain ourselves—whenever we go out for a walk we would like to see girls to talk to us. But after all we are always two, and no girl can dare talk to two young men....'

One cannot fail to recognize an echo there of one's own adolescence: but this was written by a young man of twenty-five, the father of three children.

The prevailing concept of the female as an impediment of true religious life has already been indicated. Women are the cause of sexual desire, and as such are inimical to man's highest aim, which is the pursuit of enlightenment. A man's guide in this path is his *Guru*, or religious teacher, who is the embodiment of a benign, helpful father-figure: and his constant emphasis is on the need to suppress desire, especially sexual desire.

'You must free your mind of all distractions', said one old Brahmin: 'and the greatest distraction of all is this: the clink of women's anklets as they pass.'

As one came to know the informants better, one found it possible to supplement this austere, ideal attitude towards sexuality with

details of the realities of everyday existence. With few exceptions, they revealed a pre-occupation with the subject which was no doubt heightened by the taboos with which it was surrounded. Their first admission was always of an excessive indulgence (by Hindu standards) in intercourse with their wives—for which their wives were blamed. Next, the younger men would describe the opportunities which they found for extra-marital contacts. These were always described with a mixture of guilt and self-congratulation. They were necessarily carried out in secret. The girls they found were of low caste and so poor that they would be grateful for a few pennies as their reward: and they must be young. The most celebrated of these village call-girls was one reputed to be only twelve years old.

On the conscious level, then, repression and restraint of opportunity are conspicuous features of Hindu sexual life; and the father is clearly identified as the repressing agent. Indulgence in sex was regarded as an inevitable consequence of human frailty; but it must be carried on furtively so as to allow one's elders to ignore its occurrence.

If one turns next to consider phantasies about women, there is an abundance of material to choose from, but two themes predominate. These are, the mother-goddess (*Mataji*) and the witch (*dakan*).

Every village in this countryside has one or more *Mataji* shrines. Worship of the Goddess is condemned by educated high-caste Hindus as superstitious and anti-religious because of the blood sacrifices with which it is accompanied. Nevertheless, it is to the Goddess that members of every caste repair when they are sick or in trouble. Yet she is depicted in effigy and in the popular imagination as a demoniacal, rather than as a benign, figure. She has staring eyes and protruding fangs, and she thirsts for blood: and in these respects she resembles the witch. The Goddess, however, is a warlike figure. She brandishes a sword, and is depicted standing on the chest of a man whom she has decapitated, and drinking his blood as it gushes from his neck. Round her neck is a garland of men's heads.

When supplicants wish to placate the Goddess, this decapitation is re-enacted. A male goat (*never* a female) is the offering of choice. It is held facing the image of the Mataji and its head is struck off with one blow of a sharp sword. As the blood gushes from its carotid arteries, it is caught in a metal dish, mixed with country brandy and drunk by the priest whose being is temporarily possessed by the spirit of the Goddess. This is one aspect of her worship: a male sacrifice which is not only symbolically castrated, but utterly destroyed in the attempt to slake her insatiable appetite. Another feature is that her supplicants must abase themselves completely before her, protesting their utter helplessness and begging for her all-powerful support. When this is done, her terrible aspect disappears. She becomes a gentle, succouring life-giving mother; and her worshippers are convinced that no request is too great for her to fulfil.

This, then, is the visage of the Hindu mother as she appears in phantasy: terrible, demanding, destructive to manhood but a loving, devoted nurse if one can symbolically regain the lost omnipotence of infancy.

With this last phrase, phantasy and reality come together. Phantasies of omnipotence are presumably the inheritance of every well-nurtured child; but the Hindu baby is more than well-nurtured. Throughout the two years of his suckling he is constantly at his mother's side. He is never allowed to cry. If he is ever hurt or hungry or distressed he is at once given his mother's breast. Here is the source of the kind aspect of the Mataji; and here also is the stage of magical power through which the world-renouncing ascetic passes on his journey back towards the womb.

The problem remains, to discover the origins of the demon-mother. In the writer's view, these are twofold. During his prolonged indulgent mothering, the Hindu child has no opportunity to test out his own destructive phantasies, because he is so rarely allowed to become angry, or compelled to postpone his gratifications: they therefore retain their primitive devouring and annihilating qualities. When weaning comes, it is not so much a

physiological shock (because his diet by this time consists of much more than his mother's milk) as a sudden deprivation of his mastery over his attentive mother. This shock is the more acute because at the end of weaning a husband formally reasserts his sexual claims. Hitherto the baby and his mother have been inseparable: now his father literally usurps his place in his mother's bed. In many cases the parents' sexual relations are resumed long before the child is weaned. Hindus regard infants as being too young to be aware of the significance of intercourse; thus it is very common for a Hindu infant to witness the primal scene. This sudden defection of a mother whom he has regarded as his helpless slave must excite the fiercest hostile phantasies against her: and these are projected into the devouring demon-mother. At the same time the child is confronted with an overpowering rival whose anger would be terrible (like that of the Bhairava, the lurking potent consort and ally of the Mataji), so that the only possible courses are to renounce the mother and compete for the father's love (the homosexual solution) or else to take refuge in denial of all object relations (the ascetic solution, in which a repentant Guru-father is one's guide).

In either case the mother is transformed into a demanding and threatening figure; and this attribution of demands and threats is characteristic of all subsequent heterosexual relations.

The fear of witches, which is very much alive in every family in Deoli, is of a similar pattern. Witches need not be old women, though they often are; even a young attractive girl can be one. Witch stories, as told by many informants, had this in common: that a woman had begged something from them, whether a gift of food, money or sexual favours, and they had refused. She then retired to a dark room by herself and began to eat their vital internal organs, magically, so that they sickened and would die unless she were appeased.

What can be recognized here are eating and destroying phantasies (such as are commonly ascribed to children in the later stage of suckling) projected upon the ill-treated mother.

This is the obverse of the infant's tyranny, the expression in reverse of his phantasy: 'If you do not gratify my wish at once, I shall devour you.'

It is highly significant that it is only when, in phantasy, the infant's demands upon its mother are no longer merely for food and care, but begin to be possessive and charged with infantile sexuality, that her retaliation becomes a sudden reality, no longer merely a phantasy of counter-hostility. It is surely for this reason that infantile demands, made in an attitude of infantile helplessness, are believed to be compelling, whereas sexual demands are invariably associated with phantasies of loss and destruction.

This is the nucleus of strong feeling which gives force to the dread of heterosexuality. Behind the hypochondriac anxiety of the *jiryan* is the haunting fear that the kind mother, giver of good food, builder of one's life and strength (represented by a rich intact store of unspoiled semen) has been superseded by the demanding, soul-and-body-destroying demon who revealed herself at the same time as the male child first felt the stirrings of his sexuality.

This is not the whole story. The syndrome is over-determined by the addition of oedipal castration fears and of phantasies about the ingestion of bad objects (*badparhez*) which destroy one from within. What is of interest here is the primacy of the castrating mother. In one of his stimulating and provocative essays, Ian Suttie (1932) endeavoured to dichotomize cultures into mother-dominated

and father-dominated categories, and included the Hindu worship of Kali as one of the former; but it is not so simple as that. The male god Bhairava is also there, and up to a point he substantiates the paternal authority which is consciously emphasized in every Hindu family; but in the background is the Mataji whose sexual demands are a danger to father and son alike.

SUMMARY

Two aspects of the sexual life of high-caste Hindus in a village community in northern India are described: the attitude towards homosexuality, which is at once repudiated and institutionalized, and the widespread hypochondriac concern over *jiryan*, or spermatorrhoea. The emotional complexes which perpetuate these social phenomena have been analysed, and it is suggested that their origins lie in the pattern of relationships within the Hindu family during a child's first few years. These relationships are significantly different in certain emphases from the range of patterns found in Europe and America. They are shown to be reflected in the religious beliefs of Hindus as well as in the relations between men and women in that society.

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DIRECTIONS OF DEVELOPMENT IN PROJECTIVE TECHNIQUES*

THE PROJECTIVE APPROACH IN RELATION
TO DIAGNOSIS AND PSYCHOTHERAPY

By HERBERT PHILLIPSON†

My aim is to suggest that, on the one hand, the knowledge gained from the psychoanalytic investigation of personality, in particular that organized in terms of the theory of object relations, is essential to an adequate understanding of processes of perception and cognition and, on the other hand, to suggest that the study of personality dynamics in terms of perceptual processes and perceptual organization may make a contribution to advances in the theory and techniques of psychoanalytic forms of therapy. The use of projective techniques demonstrates the interdependence of these methods of understanding personality dynamics.

The basis of the use of these techniques is the hypothesis that when a subject is required to interpret or give meaning to a somewhat unstructured perceptual presentation, he will reveal something of the dynamic processes through which he, as an individual, comes to terms with his world. We may say that, in dealing with any body of material, or of information, a person will select from it, and organize and give meaning to what he selects, according to his inner world of meanings and experience, and that what is produced will tend to be individual in its organization and meaning according to how ambiguous is the material to be dealt with and how much of the unknown there is in it. Stated in this way, the hypothesis suggests that the dynamic processes which make up a personality and the processes of perception are interdependent. It should be possible, therefore, to develop

a dynamic theory of personality which fits the perceptual processes we may observe in Rorschach responses as well as in clinical and other situations.

We have not yet got far in developing such a theory of personality, partly, perhaps, because psychoanalysts have, in general, tended to focus their interest more on the inner world, than upon the structure and personality values of external events and situations, and partly because psychologists who have concerned themselves with cognitive and perceptual processes have tended to avoid a first-hand acquaintance with unconscious dynamics.

But the above statement of the projective hypothesis is too general for our purpose. It focuses attention on the need to understand the values which make up a structured situation for the individual, but it leaves open completely the kind of concepts we may use to describe the processes inside the individual which he, as a prepared or 'tuned' organism, brings to the perceptual and interpretative task.

Let us look first at the matrix as it were, of the process we wish to understand, and then later at something like a finished product.

When a young child sees an object—say mother (M) it will be agreed that his perception of this object will be inadequate and inaccurate, because of the child's immaturity and lack of knowledge.

The perception of M, therefore, will be more properly represented by M_1 , and in normal circumstances this inadequate perception M_1 will become more accurate and approximate to M as the child matures and subjects his early experience to tests of consistency and validity in the light of his subsequent experience.

Suppose, however, that the child perceives the object M in circumstances where there is a

* Based on a paper read to the Medical Section of the British Psychological Society on 25 May 1955.

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considerable measure of tension, for example, where the satisfaction of a primary biological need is frustrated. Attributes of the frustrating object, exaggerated through emotional tension and inability to appraise the realities of the situation, will be superimposed upon the stimulus. The resulting distorted perception of *M* we may designate as *Mx*. Where there is much perceptual distortion, so that previously learned attributes of external reality are ignored or negated, then this experience, *Mx*, will not be assimilated (Piaget, 1953) into the normal process of cognitive and ego development. Thus split off in varying degrees, it will remain an unresolved tension system. Certain aspects of it, relating to the irrational wishes (phantasied to gratify the frustrated need) will be repressed, i.e. their separation from the ego will be re-enforced, also because these wishes are inimical to the safety of the maturation process and to the need to preserve objects (i.e. persons) essential to this process.

Since the infant and child is dependent upon people for the gratification of his primary needs, and it is from people that he experiences frustration of these needs, it is clear that relations with people, at unconscious and at conscious levels, will influence in a very basic way the individual's structuring of the perceptual field and the meanings given to it. The dynamic processes which result from the assimilation of good objects in terms of the ego's experience of them in providing food (in the psychological as well as in the biological sense) for the needs of growth and development, and the introjection of bad objects in terms of the frustrations they represent, and the dangerous unconscious impulses they evoke, will regulate in a very basic way the individual's relations with his world. They will regulate his whole psychic economy, in particular his individual pattern of selection and avoidance, of differentiation and integration, and of conscious and unconscious meanings which he brings to subsequent interactions with events and situations.

There is a considerable amount of evidence in psychoanalytic literature of the close rela-

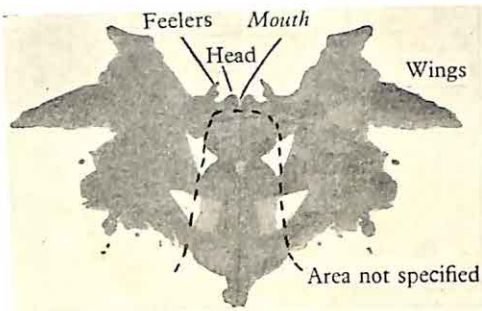
tionship between the child's experience of his primary objects and his assimilation of experience and knowledge of the external world in general. Money Kyrle (1951) has described this psychoanalytic viewpoint in terms of perceptual development. He has described how repressed object-relations with their imagery and impulses are the foundation of 'expectancies and beliefs' which determine behaviour in adult life, and he points to the influence of these dynamic systems upon the learning process, for these 'beliefs and expectancies' are excluded from the test of consistency, both with contemporary and with subsequent experience of reality. He goes on to say that these unconscious images and beliefs 'function like percepts in that they express those expectations which make up a belief in the reality of an object perceived. The emotional response of anyone under the influence of what is called unconscious phantasy is therefore the same as if the phantasy were part of the perceptual world.'

This view is closely related to the conclusion reached by Piaget, when he asserts the central role of social experience in the development of cognitive processes. Sullivan has coined the idea of 'consensual validation' to say that concepts and thinking become reality-adequate only by being tested in interpersonal communication. (Similarly, relearning, in psychotherapy, through the testing out of unconscious phantasy against ego awareness, can only become reality-adequate through the experience of the process in the transference relationship.)

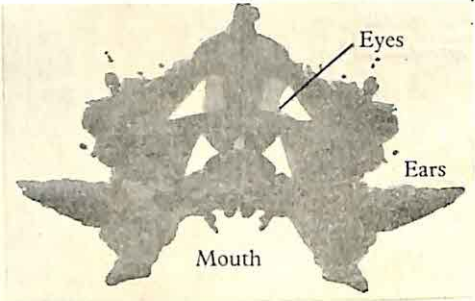
The experiences and the expectancies which the organism brings to a perceptual task, therefore, include:

- (a) The body of experience properly assimilated into the maturation process, which is capable of dealing constructively and fruitfully with external reality; this is 'reality-adequate' experience to use Sullivan's phrase (1946); it represents the strength and resources, of the ego.
- (b) The unconscious dynamic systems with their phantasy world of meanings, which are cut off in varying degrees from the possibility

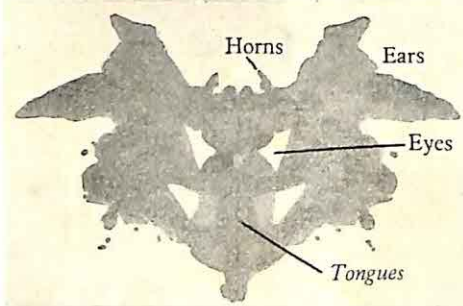




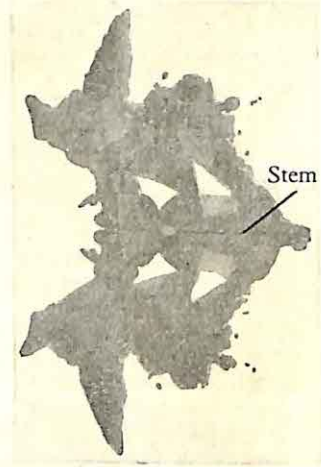
1. A butterfly (W)



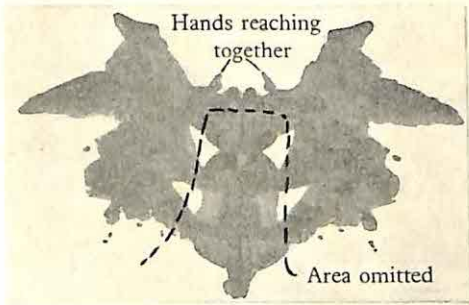
5. A demon (W) with helmet or crown on top



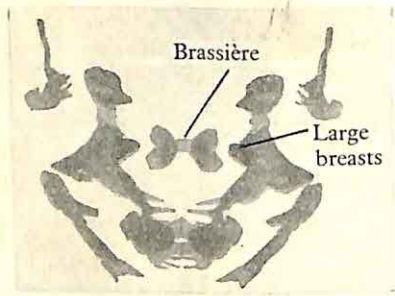
2. Demon (W)



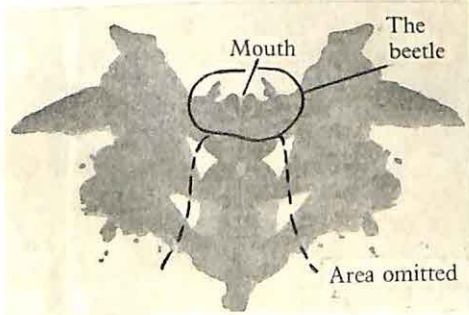
6. A goblet or goblets (W)



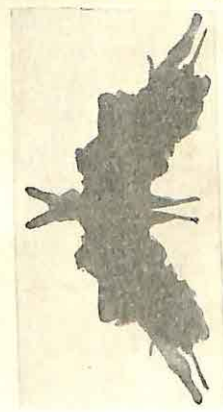
3. Two women dancing (W)



Card III. A brassière (D)



4. A beetle (dr)



Card V. A cancerous breast (W)

of modification by reality testing within the normal process of maturation. These dynamic systems, however, are for ever seeking resolution, in ways which follow the logic of the unconscious but which are irrational in the view of the ego, in order that the maturation process, the self-realization of the organism, may be complete; so that the personality may become a dynamic unity, instead of a number of discordant sub-wholes.

It is the functioning of these two dynamic systems and the relationships between them that we are concerned to understand in diagnostic and therapeutic work. In using projective techniques we seek to understand the balance of forces, as between the ego functioning and the unconscious need systems which are residual in the personality from various levels of maturation, through an examination of the processes of perception. In response to a projective test situation, an ink blot or picture situation, the patient will superimpose on it a pattern of object-relations, conscious and unconscious, to which it most lends itself to work out his dominant tension systems. How the components of the dynamic systems are deployed, at unconscious levels in terms of primitive wishes, phantasied consequences and anxieties, at more conscious levels in terms of

defensive effort and free ego activity, depends upon the degree of tension in the dynamic system, the extent to which the situation presented matches or confirms the patient's unconscious expectancies, and the reality features of the situation which tend to confirm or contradict these expectancies.

I shall say more about these variables later. But first I shall discuss briefly a sample of behaviour given in response to a projection test situation. The following responses were given to the first Ink Blot of the Rorschach series by a well-educated young man of 26 who was sent to me for vocational guidance. He gives a long history of failures or very moderate achievement in studies and work life. He is at present living at home and is not in any employment. His relation with me was very passive. He showed considerable concern about making demands on me and apologized for every movement or action which might have been taken as the least bit aggressive.

Responses given in the performance proper appear on the left, additional information gained in the inquiry stage of the investigation are on the right. The third phase 'Limit Testing' is recorded at the end of the sequence of responses. Directions by the examiner are given in italics:

0 ^ 1. A Butterfly.

^ 2. (Given without pause.) It also has demoniacal qualities, the horns, ears, eyes and tongues sticking out.

^ 3. Two people dancing away from each other.

^ 4. This is like a beetle, sort of beetle-like mouth; I can't say the rest looks like a beetle.

v 5. Another demon with ears out here, eyes, mouth open, no jaws; a helmet or crown at the top, i.e. on its head.

It's not quite convincing as a butterfly this way either, because it's grey; that's why it strikes me as a demon, because it's sort of grim.

< 6. It strikes me it might be just a sort of goblet lying on its side.

Head, mouth, feelers, wings out here—I saw it in a flash. It's not very like a butterfly because it's not coloured.

It's not pleasant; it's grotesque, fierce.

Hands reaching together, women.

It does look like a beetle now if you eliminate side wings;—does so with his hands.

(Associations:—black, cockroaches, shiny, not pleasant, smell.)

Two or three different goblets, this the stem. Devil or beetle too strong for goblet this way up.

Limit Test: *Asked what the centre of the blot might be.* A violin in the lower half. I am not good at music, would like to be. My mother has a poor musical ear. (*Human figure outlined for him.*) Could be, but the devil dominates it: and the devil has its eyes next to elbows of woman. Cannot see waist or bust of woman, only top where head should be, arms and hands and outline of legs and thighs. *Asked to say more about the goblets:* They are golden goblets for wine.

This sequence of responses and the patient's verbalizations describe clearly the superimposition of unconscious phantasy upon the more reality-adequate perceptions of the blot.

First the usual and conventional response, a butterfly. This is seen in a flash, as if it is an attempt to forestall a more sinister perception. It cannot be maintained as a defence or security against stronger unconscious phantasy expectations, because it is not sufficiently reality-adequate, it is not coloured, i.e. it has not the supporting attributes which colours would provide. It becomes a demon, a sinister thing, because it is not just right, it is inadequate in an essential respect, which has to do with emotional tone. We may predict that in relations with his objects he will not see them or behave towards them in a reality-adequate way, unless they completely fit his requirements, especially in expression of feeling towards him, and that otherwise they will take on demoniacal qualities. Unconscious phantasy will dominate his perception of his object.

The unusual aspects of his perception in the butterfly responses are: (1) specification of the mouth between the two protuberances at the top which are often used symbolically as breasts; (2) omission of the body of the butterfly—he touched all other main areas of the blot in outlining his percept. This central area is commonly seen as a female figure.

In the second response the unusual feature of his perception is the specification of 'tongues', again denoting the oral content of his phantasy. The proliferation in the plural 'tongues' is of interest. In the third and fourth responses this process is, in general, repeated. The two women dancing is largely a reality-adequate response, but again this perception quickly gives way to a more phantasy-dominated percept, a rare detail seen as a beetle, because

of the mouth. His association to this is 'black, shiny cockroaches'.

The discrepancies between these perceptions of the blot and what is usual again reflect the dichotomy between ego functioning and unconscious phantasy: the centre of the blot, usually seen as a female figure, is again omitted in both percepts. The mouth of the beetle is the only attribute specified, and the association points to dirty and unpleasant oral activity. It is as if the centre of the blot, where the patient repeatedly sees mouths and tongues, tends strongly to confirm unconscious phantasy which contains oral wishes that are fierce and demoniacal as well as bad and dirty. To see the woman figure in the centre would bring these unconscious phantasies too near the surface. When an attempt is made to test out whether the patient can, in fact, reconcile these unconscious wishes with the reality-content in the centre of the blot, it is found that he can only do so by cutting off the side with his hands, which probably represents some failure in concept formation. He can only include the centre area by making it more reality-adequate, by strengthening his impaired ego functioning.

The fifth response is given with the card upside down, and one might expect a new organization and meaning. He sees, however, another demon, with emphasis again on the mouth, now open, though incomplete. On top of it is a helmet or crown, described as being on the head of the demon. Inquiry shows this description to be a rationalization covering his inability to keep separate his perception of the blot as a crown, which is a more reality-adequate perception, from that of the demon face, a less reality-adequate perception.

Finally, turning the card sideways, he sees a sort of goblet, or two or three different goblets (again a proliferation). They are 'gol-

den goblets with wine'. He can only maintain this perception with the blot held sideways; upright the beetle or demon percepts, representing the dominant aggressive oral wishes, are too strong. Here he is able to control or exclude to some extent these irrational unconscious impulses in gratifying his dependent oral needs in regal but more egosyntonic fashion, cf. the crown in the previous response. This is possible only when his object is a thing, a goblet, i.e. his relation with his object is in terms of the attribute he most needs, oral gratification, not in terms of a whole person.

In the limit-testing phase of the investigation he is asked to give attention to the centre area of the blot again. He sees first a violin in the lower half of it, and his association demonstrates his identification with the mother. It is only when the general outline of the central figure is given for him, i.e. when I support his ego, that he does see it is a woman, adding 'but the devil dominates it', i.e. his perception of it and 'the devil's eyes are next to the elbows of the woman'. This is adjacent to where the woman's breasts are usually specified. A further inquiry showed that he cannot see the waist in the usual position, nor can he agree that the usual area is the top half of the female figure. It is of interest to see two later responses, given to cards III and V, which reveal clearly the patient's primitive identification with the mother and his wish for a completely dependent relation with the satisfying breast, by the side of his phantasy of the breast as a bad part object, and as something he has irrevocably damaged.

Card III presents a popular butterfly shape in the centre, but this time, in contrast with Card I, the shape is in colour. This butterfly shape is seen as a brassiere, 'because of the large breasts' of the popular human figures, which he nevertheless describes as male figures.

Card V presents the popularly seen winged creature, butterfly, moth or bat, again in dark shading; it is seen as 'a diagram of a bumpy breast, as in a cancer specialist's book'. In passing it is of interest to note that fluctuations in the quality of intellectual functioning,

as assessed in terms of the patient's use and organization of the structural possibilities in the blot, may be related to the interplay of unconscious and reality-adequate perceptions.

My aim in presenting this brief sample of material provided by a projective technique is to illustrate its direct relevance to clinical work concerned with psychotherapy. Such a sequence of phantasy material has something in common with the substance of dreams, perhaps because of the ambiguity and unfamiliarity of the immediate stimulus situation, the ink blot. The phantasy is, however, under the control of the waking ego, and the more so because of the social inhibition caused by the presence of the psychologist and the transference relation with him. The material will be very familiar to the psychoanalytically orientated therapist. It will not be familiar, and may even be rather meaningless to the psychologist who has not had some close acquaintance with primitive unconscious forces. Equally, examination of the quality and structure of the perceptions as such, in their sequence, is of considerably less significance without an appreciation of the nature of the interdependent unconscious phantasies. And it is judgements about the perceptual process—the organization and appositeness of the percepts evoked by the stimulus, first in the test proper, then in non-directive inquiry and finally in more directive limit testing—which enable the psychologist to assess the nature, strength and flexibility of defensive systems, and the efficiency and freedom of ego functioning.

We have seen a brief example of the interplay of unconscious and conscious meanings projected, or put out, upon unstructured stimulus situation; how unconscious split-off systems of the psyche may tend to dominate the perceptual process, and how the ego resources are used to reconcile the meaning therein with its awareness of the reality features of the stimulus.

Sometimes, in using a particular area of the ink blot, or in selecting for attention a feature

such as colour, light shading or darkness, or in attaching a meaning to a percept or a detail within it, we may see evidence of an irrational unconscious wish dominating a part of the perceptual process; sometimes it may be anxiety about the consequence of these impulses dominating, and sometimes it may be a defensive effort controlling or failing to control the underlying forces. Often these tension systems are not so strong, or the defensive efforts are easily effective, so that there is sufficient freedom for the ego to use the opportunities presented in the blots in a more balanced and creative manner.

It is possible to attempt a classification of the main variables which influence the way in which the individual deploys these conscious and unconscious forces. These variables relate to the situation as a whole, including the particular role of the psychologist conducting the investigation and the transference relationship with the patient, and to the properties of the immediate projection test situation, e.g. the ink blots, or pictures in the Thematic Apperception Test. Five such interdependent variables will be considered. They are:

(1) The meaning of the test situation to the patient, which, as in clinical interview or treatment, biases or limits the picture obtained of the operating dynamic forces. The influence of this variable is epitomized in the transference relationship. It results from a fusion of the dominant tension systems with events directly or indirectly relating to the interview situation. For example, the method of referring the patient to the psychiatrist or psychologist, or the sex of one or the other of them, and dominant features of their behaviour may contribute to this influence, which may result in an atypical distribution of the unconscious and ego forces employed in the situation.

The following extreme example illustrates the operation of this variable, while at the same time emphasizing that the exploration of the unconscious by the use of projective methods may be very disturbing to some patients, and that their use requires considerable insight and skill on the part of the

psychologist, as well as close collaboration with medical colleagues.

A patient who had shown evidence of paranoid and psychotic disorder in psychiatric interview was asked to undergo a Rorschach investigation two or three days after this interview, which he had described as the worst experience of his life. His performance in the test showed an overt psychotic condition, with such inadequate defences and uncertain contact with reality that the need for hospitalization might have been suggested. It became clear subsequently, however, that the patient came to the institution with a dominant anxiety that he might be certified, and that having got through the psychiatric interview without this happening, though with very great strain, the challenge of the Rorschach test doubly confirmed his paranoid anxiety, which circumstance appears to have been responsible for a temporary psychotic breakdown in the test situation. That he was asked to attend for out-patient treatment very soon afterwards provided for him a therapeutic outcome of this experience, and a retest some weeks later, while showing many of the same psychotic features, gave evidence of a much more integrated personality—a picture more closely in keeping with the psychiatrist's experience of the patient during the intervening time.

(2) The amount of tension in the dominant tension systems of the individual. This derives from the amount of frustration of primitive biological needs, overlying constitutional determinants. Degree of tension is shown particularly in projection test responses by the amount of perceptual distortion, and by the nearness to the surface or extreme remoteness of the unconscious phantasy content in the interpretations given by the subject. Such unusual perceptions, as some of those given in the Rorschach responses in my first illustration, reflect the extent to which primitive need systems are operating on their own without the effective mediation of the ego.

(3) The extent to which the stimulus situation 'fits' or 'matches' the object-relation

situation from which the unconscious tension system developed.

The following brief illustration is taken from the responses to a modified Thematic Apperception Test in which the stimulus values are similar to those in Rorschach except that, in each picture, human figures represent the primary stimulus content (Phillipson, 1955).

In the series of twelve pictures used, three show ambiguous three-person situations, and in her stories to two of these a female patient treated them as two-person situations. Inquiry showed that, in fact, she did not see a third person in either of these pictures, although they are seen as three-person situations by most subjects (94 and 96%, respectively, of the Clinic population see them as such). Her perception of the human content of the other ten pictures, showing one-person, two-person and group situations, in terms of figures seen, was normal except for one group situation made up of two groups of three. Interpreting her behaviour with the three-person situations in the context of her whole performance, which provides confirmatory evidence, we may say that her perception of these situations and her treatment of them reveals her over-riding need for exclusive attention and her unconscious hostility to any rival. In unconscious terms, the third person is killed off. From another point of view, by omitting to see the third person she gets exclusive attention, and at the same time avoids facing in reality the extreme jealousy and hostility which the perception of the picture as a three-person situation might have evoked.

(4) What may be described as the *reality content* in a situation. This relates to the ambiguity or degree of structure, and also to the amount and variety of content, which may confirm or contradict unconscious expectancies as well as provide defensive opportunities.

(5) The *reality context* which is closely related to reality content. This has to do with the emotional climate of a situation, the apparent warmth or coldness, the invitingness or threateningness of the human relation-

ship aspects of a situation. It relates closely to the countertransference aspects of a relationship in clinical work; for example, to the amount and quality of warmth or support that is offered. The reality context tends to confirm, contradict or intensify the feeling aspects of a situation. In Rorschach ink blot situations, the light texture, darkness and colour values contribute to the reality context. An illustration is provided in my first example, where a part of the difference in the way the patient sees the 'butterfly' shapes in the achromatic cards I and V and the coloured card III may be attributable to this influence. And in a group therapy situation, for example, there is a considerable difference in emotional climate created by a member who demonstrates in a very controlled manner her wish for exclusive attention from the therapist, from that created by the group member who suddenly bursts out with the wish to sit in the therapist's lap and scream at the rest of the group. Such a difference in the kind and quality of emotional climate often has a marked influence on the way in which the members of the group respond in terms of wishes, anxieties and defensive effort.

It is in terms of the three latter variables, the object-relations content, the reality content, and reality context, that we may seek to understand the dynamic properties of the immediate projection test situation. Following the theoretical approach I have adopted, it may be agreed that the primary stimulus value, as in other clinical situations, is the object-relations content. In Rorschach the stimulus value in these terms is known within limits to the experienced user of the technique. In Murray's Thematic Apperception Test the primary stimulus values are presented directly in the pictures which show ambiguous social situations, and the material produced by patients, in attempting to give life and meaning to these situations, is of a kind more familiar to the psychotherapist. In a new projective technique, which I have called the Object-Relations Technique (1955) the primary stimulus values are also in terms of human relations

situations, but much more ambiguous than those in Murray's pictures in order to highlight perceptual discrepancies. The object-relation situations are also varied in terms of reality content and reality context.

One-person, two-person, three-person and group situations are presented in each of three series:

(a) With little or no reality content and in a context of light, soft shading which is inviting because of its soft texture, but threatening because of the atmosphere of diffusion and the unknown.

(b) With an austere, but definite and uncompromising reality content and in a context of darkness which is intended to increase feelings of threat from the external world.

(c) With a rich and varied reality content, and a context, including colour, which heightens the emotional tone of the situation.

The use of this technique provides evidence of how the patient sees people in his world, in terms of unconscious and more conscious object-relations, under varying conditions. The patient's perception of the pictures, e.g. in what is seen, omitted, emphasized, distorted or added, reflects his ways of dealing with the object relationship situations presented, and should be congruent with the roles and relationships given to the people in the stories.

I shall now turn to some of the applications of the projective approach as I have described it, first, as it may contribute to advances in diagnostic work and psychotherapy, and secondly, as it relates to the role of the clinical psychologist and the development of his techniques of personality assessment.

By the use of projective techniques it is possible to obtain a preview of some of the personality dynamics which will be confronted in psychotherapy, for example in terms of the nature of dominant unconscious phantasies, the level of maturation from which they spring, and what is superimposed upon them at subsequent stages of maturation. At the same time evidence may be obtained about the amount of tension in particular tension sys-

tems, in relation to the nature, strength, efficiency and flexibility of defences. It is possible, therefore, to make some prediction of what may happen when defences are loosened, a judgement which is of great importance in planning therapeutic commitments under National Health Service conditions.

A careful use of the techniques, particularly where an insightful use of opportunities in the 'limit testing' phase of the investigation is made, will provide information on the patient's flexibilities in approach and of the kind and degree of communication which is possible for his ego to establish with different levels of unconscious tension systems. It is on the basis of such assessments that a patient's suitability for long-term intensive therapy, supportive counselling, or short-term therapy may be decided. Where the latter is a possibility, assessments made from the projection material may contribute to the more precise definition of the limited aims of the therapy, e.g. what kind of problems may be tackled and what had best be avoided.

The use of projective techniques as an aid to answering diagnostic questions of this kind does, of course, require the closest collaboration between psychologist and therapist. Not only must they be able to speak the same language, and each be capable of examining and explaining his evidence from interview or test in an unbiased manner; but it is necessary also that differences of opinion are not only tolerated but welcomed, for the understanding of the nature of the differences in personality picture obtained from the two approaches and the reasons for such differences is often of crucial importance.

My suggestions concerning the more direct use of these techniques, and the ideas which derive from this approach, in therapy, are more tentative. For some time my colleagues and I have used the patient's performance in tests, cognitive and projective, as a means of communication for interpretative therapy in vocational guidance work, but until recently there have been no attempts to use projective situations systematically in this way. It is

likely that on the basis of the understanding of the dynamic processes revealed in Rorschach at the diagnostic stage, a second work through of the ink blots by the patient in therapy may facilitate a great deal of therapeutic understanding. To my mind the key to such work, as a short-term endeavour, will depend on the essential but parsimonious use of transference interpretation.

A more indirect application is suggested from the rationale I have attempted to develop in terms of the main stimulus variables, which in varying combinations determine the way in which the conscious and unconscious resources of personality are employed in accommodating to particular external events or situations. A probable corollary of this viewpoint might be that particular combinations of these variables, object-relations content, the reality content and reality context, could also be potent agents in a therapeutic situation. The possibility of structuring a situation intentionally in terms of these variables may be considered, for example so that the object-relation situation matches that of the patient's dominant tension system, while at the same time the particular reality content which the patient relies upon for defensive effort is excluded. Such situations do, of course, arise by accident, as it were, in any long-term treatment, but to create them intentionally may be helpful in less intensive work.

An episode which occurred in a group therapy session will illustrate this possibility. A patient who had sought psychiatric help because of frigidity and general unsatisfactory relations with her husband was able to mask her intense hostility to men and her underlying intention to provoke them to fight over her, while in a mixed therapeutic group, by her coquettish behaviour and her usual defensive role of the simple innocent little girl. The main dynamics of her problem were not revealed until an occasion when the other women members of the group were absent. She was then faced with a situation in which she was the only woman present with three male members of the group. This situation closely matched

her own family situation and, since the women members in the group whom she had previously relied upon to provide safety for her offensive and defensive behaviour were absent, she became acutely anxious. The recognition of the nature of this anxiety, that she might provoke intense quarrelling among the men, brought to the surface her underlying aggressive attitude. The therapeutic experience started a phase of rapid progress in the patient's treatment.*

The above suggestions emphasize again the essential commonality of approach of the psychologist using projective techniques, and the therapist using his methods of diagnosis and treatment. The important difference lies in the emphasis in the projective approach upon the stimulus values of external events and situations, and upon the dynamic processes of perception. Closer relations between the two approaches may contribute to theoretical clarifications as well as to changes in technique for both.

A more precise understanding of the interdependence of personality dynamics and perceptual processes would result from establishing norms of perception for standard projective situations. More important perhaps would be norms of perceptual development relating to the main stages of maturation in infancy and childhood, especially if it were possible to investigate experimentally the kind of deviation from these norms which might be expected from varying kinds of frustration or deprivation. Here the more recent work of Piaget (1951, 1953) provides an important basis.

A crucial stage of development would be the period six months to one year, for this represents the first stage of development of the psychological ego. Parallel with the loosening of the biological unity with the mother at the weaning period, the infant develops the capacity to differentiate, in a very primitive way, the self from the external world. This is

* I am indebted to Dr J. Kelnar for this illustration.

a development essential for the beginning of concept formation and symbol formation. If there is no appreciation of differences, there can be no concepts; if there is no ability to discriminate self from others, there can be no symbol formation. Piaget has demonstrated that early related ideas of time and space and of causal relationships also develop during this period. In the series of Rorschach responses quoted earlier in this paper there is clear evidence of breakdown in ideas of causal relations (responses 1 and 4), and in spacial and causal relations (card III), in each case linked with oral phantasy.

Briefly, I am suggesting that the projective approach adds a perceptual frame of reference which may be integrated with advantage with the interpersonal frame of reference current in psychotherapeutic theory, and that this double approach may result in important contributions to a genetic theory of development.

Collaborative work in these directions can also result in important advances in the methods and techniques of the clinical psychologist. With a fuller understanding of the interdependence of the dynamics of personality and the processes of perception it may be possible to develop projective techniques in which the range of stimulus values is more precisely known, and where a more systematic investigation of the interplay of conscious and unconscious forces would be possible. This way lies the approach to more objective methods of assessment in dynamic psychology.

In a previous paper (1953) I have discussed the implications of this approach for the investigation of cognitive functioning in clinical work. Cognitive test items, as well as the projective tests, have their underlying or unconscious meanings, according to the kind and pressure of the unconscious dynamics of the individual, and the degree of fit between the items and his unconscious world of meanings, as well as their overt and reality valid meanings according to his ego experience and level of intelligence. For example, with a vocabulary test, the associations, in the manner of a

word association test, bring out the underlying meanings which account for the individuality of the answer as well as its scorable quality, i.e. its efficiency. In the Similarities subtest in Wechsler, as with any concept formation test, unconscious similarities and differences are superimposed in varying degrees, according to their strength and the fit of the stimulus question with them, on the subject's conscious evaluation of the similar and different aspects of the item. It is this process of bringing together, or reconciling in an egosyntonic way, the unconscious with the conscious meanings which again contributes much to the individuality of the answer and also to the effectiveness with which the task is carried out. The rationale of other cognitive tests in the Wechsler series, with the possible exception of Comprehension, is less clear in this theoretical framework, which takes much from their clinical usefulness.

It is possible, indeed, to contemplate the development of a series of cognitive tests in which the stimulus values of the items, in terms of unconscious as well as conscious connotations, are intentionally and systematically graded, so that the performance obtained from patients will give information not only about the range of effectiveness of intellectual functioning, but provide clearer evidence on its quality and the reasons for its variations. The emphasis will be on what kind of functioning and why.

In my view the projective approach is essential to the work of the clinical psychologist, especially where psychotherapy is a possible form of treatment for suitable patients. The full use of this approach requires that the psychologist should work closely with the therapist in diagnostic work and treatment. The approach is further enriched when the psychologist has opportunity for first-hand acquaintance with the primitive forces which these techniques are designed to assess. Here the development of group psychotherapy, which may be observed without interruption of the therapeutic relationship, offers a valuable opportunity.

But apart from their practical use for psychologist and psychiatrist, I believe that these techniques offer a valuable training ground for bringing together the psychology of perception and cognition with the psychology of ego development and unconscious dynamics which derives from psychotherapy.

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A CASE OF AN UNUSUAL IMPULSE DISORDER

BY CHARLES K. HOFLING,* AND ROBERT W. MINNEHAN†

The patient who is the subject of this report is presented partly because the unusual nature of his behaviour, the ritualistic sucking of his own blood, constitutes a psychiatric curiosity, and partly in the hope that a consideration of his personality and the function of his symptomatic behaviour may be of value as evidence regarding the working of certain archaic psychodynamics. The patient's adjustment was such that an opportunity was afforded of studying a bizarre symptom against a background of ego function which was less impaired than is often the case in such a situation. The diagnostic phrase appearing to have the greatest value in bringing this patient into focus with regard to the fundamental observations which have been made in this area is that of onanistic algolagnia.

In *Three Contributions to the Theory of Sex*, Freud (1905) notes the invariably composite nature of perversions and, in a footnote, indicates the close relationship between perverted acts and certain paranoid delusional fears and hysterical phantasies. In 'A child is being beaten', Freud (1919) discusses both sadistic and masochistic components in the development of the girl's typical fantasy of this nature, but leaves open the question as to the existence of a preliminary sadistic phase in the boy's fantasy. Bergler (1938) presented evidence strongly suggesting that such a phase does occur. He considers the boy's aggression to be originally directed against the breasts of the pre-oedipal mother and later, under pressure of guilt, turned against himself by way of equating part of his own body, the buttocks, with the mother's breasts. Subsequently, in the oedipal phase, Bergler believes

the executive to be 'transcribed' from mother to father. This change is reversed in the final phase because of guilt over homosexual impulses.

Considerable work has been done on the question of relating certain sado-masochistic and other neurotic impulsive behaviour features to the mechanisms of introjection and identification. Fenichel (1926), speaking of instances in which ego changes due to identification have a deeply rooted id character, gives two possibilities: 'in the first place, when it is precisely the id characteristics (id impulses) which are taken up into the ego... and in the second place, when objects of the deepest impulses of the id find lodgement in the ego, for then they bring back into it a piece of archaic, undifferentiated id'.

In a recent paper, Greenson (1954) gives precise delineations of incorporation, introjection and identification, followed by certain observations of considerable pertinence to the case material to be presented here. He speaks of patients 'struggling against identification' as occupying a position akin to the addictions and perversions, 'belonging somewhere between the transference neuroses and the narcissistic neuroses'. He goes on to note that a deep regression appears to have taken place in such patients, observing that they 'had returned to a level where the ego is unable to maintain a separation between the introject and the self. These patients tended to feel that they were being devoured by the introjected object or that they were the hated introject. These patients could not differentiate between resembling the parent and being the parent. To them resembling and being were the same. As a result of the fragmentation or defusion of the internalized object and the self-representation, the ego has to combat the early identifications because this primitive kind of

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identification brings with it the feeling that the patient is being devoured or is losing his identity, which in either case is intolerable.'

In his 'Analysis of an adult nail biter', Rosow (1954) presents a comprehensive study of an oral-aggressive personality with the specific impulse of nail-biting. Rosow clearly indicates the complex and over-determined nature of the symptomatic act. Whereas it eventually came to serve as a means for the discharge of all tensions of whatever origin, the nail biting was found, on the basis of many dreams, fundamentally to represent 'the vengeful biting of the disappointing breast'. Rosow found that his patient had 'mastered this dangerous, phallic, devouring mother by incorporating her. The nail biting symbolized his incorporation. (It) represented the destruction of mother and her now introjected nipples, her penis, her nails. Putting his finger into his mouth became an active self-penetration to deny his fear of passive submission to the feared penetration by her.' Among other significances of the nail biting, Rosow notes its prophylactic use as a depressive equivalent, commenting 'although his aggression was self-directed, he avoided its internalization by discharging it on to his nails'. The function of the symptom as a masturbatory equivalent is also clearly shown.

CASE REPORT

The patient, Robert, was a nineteen-year-old serviceman, who was referred from his own station hospital to a military psychiatric centre for evaluation. The original hospitalization had taken place after Robert's Barracks Chief had found him in the latrine, cutting his wrist with a razor blade. The assumption had been incorrectly made that this behaviour constituted a suicide attempt, and the patient had spent ten days in a locked ward with security precautions.

Robert was found to be a pale, rather slender young man, with unusually long curly hair. He had an internal strabismus of the left eye. Numerous superficial scars were

noted on the left extremities, particularly the left forearm. The patient had a minimal speech impediment and a quick, restless quality of movement. For some time he spoke only in answer to questions; his responses were usually brief, rapidly given, and to the point. Robert's mood was one of mild anxiety and depression. His individual affective responses were essentially appropriate in kind, although less so in degree. There were no presenting complaints in the usual sense, but the patient remonstrated against his hospitalization, denying suicidal intent. There was no evidence that the patient was hallucinated or delusional. His sensorium was entirely clear and his intelligence appeared to be above average.

When questioned about the circumstances of his having been sent to the hospital, the patient said that he had been caught, for the first time, in the practice of a ritual which he had maintained for the past five years. This behaviour consisted in his incising the skin on the left side of his body, usually the arm, with a razor blade and then sucking the blood. The act was performed at night and alone, at a frequency of two to three times weekly.

The patient was born in Norfolk, Virginia, in 1934 and lived there until the age of five years, when the family moved to Raleigh, North Carolina. He was the youngest of three children, having brothers eight and five years older, respectively. The general impression the patient gave of his mother was one of a cold, rigid, long-suffering type, a member of a radical Protestant sect, strongly opposed to drinking, smoking and many social activities. For the past several years she had suffered from severe arthritis. The patient's father was described as powerfully built, a moderate but chronic alcoholic, and a sufferer from peptic ulcer, who nevertheless managed to work as a contractor, providing a good living for his family. Robert said that his father was abusive to his mother when drunk, but that, generally speaking, it was his mother who ran the household. He regarded his parents' marriage as an unhappy one.

According to the history obtained from the parents, the patient was an unwanted child, but pregnancy, labour, and delivery were normal. Robert was never breast-fed and was a severe feeding problem for a considerable length of time, gaining no weight during his first five months. He learned to speak precociously, saying distinct words by nine months and speaking in sentences by seventeen. Toilet training was begun in the early months of life, with complete bladder and bowel training being established by eighteen months.

Robert's earliest recollection was of being shoved off the high porch of his home by an older boy. Other early memories included one of watching older boys at a swimming hole 'when he wasn't supposed to' and one of going fishing with his father. The latter was associated with mixed emotions. The patient said: 'He was so big, and I was so small.... He'd heckle me.'

The patient's medical history included several items of interest. The first of these was the development of an internal strabismus of the left eye at about age three. When his parents took him to an oculist for this condition several years later, Robert manifested a persistent lack of co-operation, refusing to perform the prescribed exercises and repeatedly breaking the corrective lenses.

The second medical incident was the performance of a tonsillectomy at age six, for which the patient was totally unprepared. The fear aroused by this experience was still quite vivid at age nineteen.

The third occurrence was a severe skin disease at about eight, which produced 'blisters and boils' all over the patient's body. Robert was kept away from school at this time, and he received a great deal of attention from his mother, who applied daily wet dressings and took him for walks and to the movies during his slow convalescence.

The patient regarded his elder brother as having been the father's favourite and the middle brother as the mother's. Robert got on very badly with the middle brother and

was repeatedly worsted in fights with him. Occasionally the elder brother, to whom the patient felt quite close, acted as his protector.

Robert slept in his parents' bedroom until the age of nine years. At this time the eldest boy entered military service, and the patient was moved into the room with the middle brother, with whom he remained, despite constant friction, until this brother also entered service. Notwithstanding the long period in his parents' room, the patient had no conscious recollection of their sexual activity nor of seeing his mother's body.

Robert's achievements in school were adequate in many respects, despite truancy and a general lack of interest in all subjects, 'except ancient history'. He stopped school in the tenth grade, when only fifteen years old, just before the final examinations, which he thought he would probably have passed.

The patient had few conventional social activities and interests. While in high school and thereafter until entering service he was a member of a 'speed club', a group of teen-agers interested in racing motor-cycles. This group also engaged in various delinquencies, including sexual promiscuity, acts of vandalism, and the experimental use of narcotics. Robert had a keen interest in guns and habitually went about armed.

The patient said that the subject of sex was never mentioned in his home. He recalled a marked feeling of genital inferiority to his father and brothers. Robert acquired his sexual information on street corners, and, a little later, from books. He learned about masturbation at age eleven, when he was sliding down a playground pole and found that the friction produced an erection with pleasurable genital sensations. The patient practised masturbation with aggressive heterosexual phantasies and little conscious guilt between the ages of eleven and thirteen and a half years. He never experienced a nocturnal emission,* although he frequently

* A phenomenon first discussed by Ferenczi (1916) as indicating the utilization of 'sexual' forms of expression by pregenital impulses.

dreamed of having intercourse with a girl in a parked car.

Robert's fourteenth year and the early portion of his fifteenth constituted a crisis period for him, in which a number of significant events, including the beginning of the blood-meal ritual, occurred in close succession. The background was one of increasing friction with father and mother and increasing delinquency. During this period Robert had his first heterosexual experience. On this and subsequent occasions he reached orgasm rapidly, but claimed not to have experienced erectile impotence. His keenest sensations at orgasm were perceived in a region just superior and deep to the symphysis pubis, i.e. corresponding to the location of the uterus in the female.

The tempo of the patient's sexual activity steadily increased. Robert made the surprising statement (in view of the family's sleeping arrangements) that it was in connexion with one of his early sexual partners that he first became aware of the phenomenon of menstruation.

At about this time, the patient had taken a girl to a movie one evening and was riding back on his motor-cycle with her seated behind him. He had intended to have intercourse with her before returning home. An accident occurred in which Robert and the girl were thrown forward off the motor-cycle, cutting themselves on its windshield. The girl landed on top of the patient. Robert picked himself up and noticed that both he and the girl were bleeding freely. He had sustained multiple lacerations of the arms. The patient had had the habit, for as long as he could remember, of putting his mouth to any cut he received and sucking the wound. On this occasion he felt very tense and felt the urge to suck the wound very strongly. He did so, aware of a strange excitement, and, as the lacerations were bleeding freely, drank an appreciable amount of his own blood. He felt considerable relief from this procedure.

About one week after the accident, while alone at home, the patient again felt himself

growing very tense and was again seized with the urge to suck his own blood. He gave himself a superficial laceration on the left arm and sucked the blood which appeared. For a time Robert repeated this procedure—always in secrecy—at intervals of approximately one month. Eventually two modifications appeared. One was an increase in frequency. The other was a change in technique: the patient began to compress the edges of the wound with his teeth to express the blood.

The next striking event in the patient's history occurred at the age of sixteen. On this occasion, Robert accepted a lift on the highway from two strangers, one a young man and the other middle-aged. The older man made homosexual advances to the patient, who became furious. Robert pulled out an automatic pistol and shot the homosexual, wounding him severely in the thigh. He was never apprehended for this crime.

In connexion with repeated acts of theft and vandalism, however, Robert finally got into serious trouble with the Juvenile Court, and, at the age of seventeen, was given the choice of entering military service or going to the reformatory. The patient chose the former. During his year and a half of service he got on well and was up for his second promotion at the time he entered the hospital.

Shortly before admission, Robert had become acquainted with and then engaged to a young college girl of a respectable local family. The patient considered himself to be in love with her, and the wedding date was only three weeks away when he entered the hospital. Robert's relationship with this girl was in marked contrast to his usual relationships with women. He described her as attractive, intelligent, frank in manner, of a good reputation, and not forward sexually. The patient had never tried to 'make' her, as was his routine practice on the third or fourth date with all of his previous girl friends. In fact he had been sexually continent during all of the time that he had been going with her. In this period the frequency of the patient's

blood-meal ritual had undergone an increase to its peak of three times weekly.

Robert was aware of feelings of trepidation about the approaching marriage. He realized that this girl would not approve of his wild ways, yet he felt incapable of giving them up. In particular, he knew that she would be shocked if she ever discovered his blood drinking, and he knew that if he had to choose between her and the continuance of the ritual he would have to take the latter. (At this point in the evaluation, the circumstances leading to the patient's admission were re-examined, and it became clear that Robert had unconsciously engineered the admission by relaxing the secrecy precautions which he had successfully observed for five years.)

The patient was rather hazy about the events occurring in the first hospital, but the observations of the attending physician and nurses indicated clearly that when he was placed on security precautions, i.e. when it was made impossible for him to engage in the blood-meal ritual, a psychotic episode took place. As he became desperate, Robert made unsuccessful attempts to manufacture a cutting instrument by breaking a medicine glass. This was promptly taken from him, and he was observed to become grossly agitated and to speak wildly, saying that he 'had to have blood or he would starve to death'. Later the patient said: 'Now I will die'; and still later; 'I'm going to cut that big thing off. That's what is causing all my trouble. I've got to cut it.' Eventually the patient managed to elude the security precautions, and this success appeared to coincide with a subsidence of the grossly disturbed behaviour.

While giving the above anamnesis the patient mentioned that he suffered from two recurrent nightmares. The first of these had occurred since the age of four.

I am falling down slowly through a great, long, square-shaped, tower-like thing—perhaps a shaft. There are great nuts and bolts sticking out of it. It is dark and seems to be made of iron.... It seemed so real that as a kid I could still see it when I woke up, terrified.

When Robert was asked to free-associate to the manifest content of the dream, the following material was obtained.

Falling: landing... get hurt.

Big dark shaft: a mine in the earth or the hold of a ship... a big old tanker in Norfolk... Father was a friend of the captain and took me there one day.

Made of metal: a pulp mill... machinery... in Norfolk... you couldn't stand the odour... couldn't get near it... it was terrible.

Big nuts and bolts: an Erector set.

This dream deals with a mysterious structure, by which the patient is being engulfed and about to be lacerated, having some characteristics of a tower and some of a shaft. The associations, 'a mine in the earth' and the 'hold of a ship' appear to indicate a representation of the female genitalia, specifically, the vagina. The expression 'father was a friend of the captain and took me there', seems to point to the patient's mother, as does the timing of the onset of the nightmare. The 'pulp mill' associations appear to substantiate this interpretation in a number of ways. The 'machinery' may refer to the mysterious and complicated organs of the woman's body. The words, 'You couldn't get near it', aptly fit the small boy's position with respect to the mother's body. The reference to the 'terrible odour' may indicate the child's reaction to the menstrual odour or possibly to the sexual secretions. The idea contained in the words, 'pulp mill', may be the grinding, destructive power attributed to the mother's vagina, and the inwardly protruding 'nuts and bolts' may refer to a phantasy of teeth in that organ. The phrase, 'nuts and bolts', also suggests the male genitals, as does the association to 'Erector set' and the fusing of the concepts of shaft and tower. The total impression is that of a condensation of ideas, including that of a phallic female and that of the *vagina dentata*.

The second nightmare began immediately following the homosexual approach.

I was in bed. A man was there on the bed, trying to rape me. I had a knife in my hand and

threw it at him. I got him. Then I ran out of the room... I woke up in a cold sweat.

The patient's associations to this nightmare are as follows:

In bed: a pleasure in some instances.

A man was there: fear...panic.

Rape: a criminal attack...disgusts me.

Knife: cut...cutting purposes...or to scare somebody with.

Throwing a knife: at somebody...at one boy...he tried to steal something of mine...money...I cut him in the hand.

Running away: fear...pleasure at not getting caught...I used to provoke the cops sometimes in my car...never got caught.

The associations to this dream begin and end on a note of pleasure, making the wish underlying the expressed fear seem reasonably clear. Perhaps the relatively mild idea in which the associations to the word 'knife', terminate is in line with the wish component. The idea of cutting the homosexual aggressor on the hand appears to be a highly overdetermined one, referring to the patient, himself, to the homosexual in the automobile, perhaps to the patient's father (who was about the same age), and possibly even to the patient's mother (the man-woman of the previous dream).

PSYCHOLOGICAL REPORT

The patient received a number of psychological tests during the evaluation period, including the Wechsler-Bellevue, Rorschach, Thematic Apperception Test, Bender-Gestalt, Draw-a-Person, and Word Association tests. These data were independently evaluated by two clinical psychologists, one of whom had not seen the patient nor received clinical information about him. In general, there was a high degree of similarity between the impressions of the psychologists and those of the examining psychiatrists. The senior psychologist's general summary is as follows.

The record is that of a disturbed, anxious, and threatened young man, who is struggling to maintain his intellectual efficiency and his defensive

contact. The attempt is not too successful; there are lapses in judgement, weakening of the processes of abstraction, and an impairment in attention and routine learning, due probably to surface anxiety. His inner life, which is absorbing, frequently has a bizarre colour, and he is not sufficiently in touch with group ways of thinking and feeling. Though he lives more within his own phantasy than in response to his environment, such affective expression as he indulges in is rather egocentric and vague. One senses in him the beginnings of a paranoid schizophrenic break.

He is still capable of some compulsive defences in certain well-structured situations, and there are evidences of the hysterical psychopath, but anxiety and deep feelings of inadequacy are not being bound by these defences, and more ominous processes are apparently developing. Sexual problems loom large. There are pathetic attempts at pseudo-masculine pretensions in an effort to control castration feeling, his feminine identification, and homosexual problems.

There has probably been a hostile identification with a phallic mother which has left him feeling castrated and inadequate as a man and concerned with voyeuristic and exhibitionistic impulses. This has led to extreme hostility of a pervasive sort, which blocks satisfactory interpersonal relationships and leads to a highly egocentric orientation. Regardless of his struggle to convince himself and others, he often feels frustrated and deeply discouraged and may give in to self-destructive thoughts. It is more likely that the self-destructive impulses would be indirect, not direct suicide.

A number of the patient's specific responses to the individual tests were of particular interest.

In the Draw-a-Person test the first figure produced was that of a woman, originally drawn nude, conveying an impression of forceful movement and unusual physical strength. The male figure was given the uniform of an air policeman, but the body beneath the clothing was weak, and one leg was drawn shorter than the other.

In the Rorschach Test the patient saw a vampire bat gazing into a canyon on Card VI and a wolf standing on the edge of a granite wall on card VIII.

In the Word Association Test the patient associated 'to want blood' to the word 'hunger', 'blood' to 'suck', 'blood' to 'bite', and 'bone' to

'breast'. The longest initial response time, 15 seconds, was utilized in producing the word 'fun' in response to 'vagina'.

FORMULATION

A fundamentally rejecting mother with respect to giving of supplies of warmth, nourishment, and affection, probably rendered less adequate at the time of the patient's birth than she had previously been by the demands for maternal giving made by the increasing family and the alcoholic husband, would tend to produce in the patient a high intensity of oral-dependent and subsequently of oral-aggressive drives. Such an inference receives confirmation in the history of the patient's having been a serious feeding problem in infancy. Added to this poor beginning were the effects of the mother to control the patient and to force him to control himself, as exemplified by the premature initiation of bladder and bowel training (and, at a later date, by the rigid religious training). These pressures would enhance the aggressive tendencies of the child, and at the same time increase his fear of the mother's power.

Under such circumstances one would expect the patient's early and repeated exposure to the parents' sexual activity to result in a seriously distorted and traumatic interpretation. It appears likely that the parents showed aggression to one another in their sexual life as in other aspects of their lives. Judging by the patient's (and the social worker's) description of the mother as a cold, rigid, whining individual, one would expect her to have been frigid. On the other hand, the father frequently came home intoxicated and may often have displayed his resentment of his wife in sexual behaviour. Possibly the wife used his sexual demands to humiliate him. The result appears to have been that Robert received not only premature erotic stimulation but also stimulation of fear and hostility toward both parents. It was in this setting that the nightmare of the dark shaft had its onset. One is led to believe that this dream involves a projection on to the mother of the

patient's oral-sadistic impulses, with a displacement from mouth to vagina as a result of the primal scene experiences.

There seems to have been a turning from mother toward father and elder brother for affection and support, judging by the early memories of doing things with them. In view of the swimming-pool memory, the patient's having been later approached by homosexuals, and his violent over-reaction to such approaches, one suspects that there were strong impulses in the direction of being passively used by men. Something prevented this trend from developing to completion, however. Perhaps the strength of the aggressive needs was involved. Perhaps the need to obtain some sort of satisfaction from the frustrating mother was too great. Perhaps, too, the patient's hostile partial identification with the mother, based on an oral incorporation, while it pushed him in the direction of feminine behaviour, also contained in itself other elements, e.g. the phallic attributes of the mother and her punitive super-ego, which blocked a homosexual development in the usual pattern.

Some partial attainment to the oedipal level appears to have taken place, despite the patient's pre-genital conflicts and fixations, perhaps because of the excessive stimulation of sleeping in the parental bedroom. The evidence for such attainment includes the patient's Don Juan activities, his jealousy of the middle brother, the mother's favourite, and his becoming able to feel an attraction (mixed with anxiety) to a respectable girl.

It is quite clear, however, that Robert did not attain a full oedipal level of psychosexual development. The attendant anxiety and the earlier fixations were too great. The linkage of erotic gratification and aggression was firmly established through the traumatic experiences of the oral and anal periods. The ambivalence toward the mother, rooted in these experiences, prevented anything like a full development of oedipal strivings, even while the patient's earlier deprivation made him need erotic gratification and narcissistic supplies more than the average individual.

Certain portions of the material—the early memories of physical injury at the hands of older males, the feelings of genital inferiority to father and brothers, the repression of the fact of menstruation, the drawing of the crippled policeman, etc.—indicate that the patient suffered from castration anxiety in excess of normal. The dream of the dentate vagina suggests that this anxiety was also qualitatively different from the normal, having been influenced by the pre-existing anxiety deriving from the oral level. The patient appears to have feared castration not only at the hands of father, but also, and more importantly, from the mother.

The patient's strabismus (and subsequent almost total loss of vision in the affected eye) appear to be related to primal scene exposure. The history given by the parents indicated that the strabismus was not a congenital lesion, but developed at about age three. Taken together with the patient's vigorous resistance to measures designed to improve his vision, the evidence makes it tempting to speculate that it seemed necessary to the patient to avoid certain disturbing visual impressions. Be that as it may, the disability must, in itself, have reinforced fears of bodily damage and inferiority, and, more specifically, must have been a symbolic partial castration.

Another manifestation of the severity of the patient's castration anxiety was his repression of the fact of menstruation, despite his having been in a position to obtain repeated visual and olfactory evidence of it. Still another was his feeling of genital inferiority to his father and to older boys.

Robert's serious and protracted skin disease at ages eight to nine must also have been of considerable significance, both in view of what had gone before and of his current symptomatology. In the first place, it was another physical threat. In the second, it further marked him off from other children. Then, too, it was the one time in the patient's spontaneous recollection that he was consistently well treated by his mother. Finally, this good treatment included the daily dressing

of the skin lesions by the mother. The patient's skin erotism, particularly of a sado-masochistic sort, may have been considerably stimulated by this experience.

An increase in the patient's passive-feminine orientation ensued. That the ultimate strength of this orientation was considerable is shown by numerous bits of evidence. Some of this evidence has already been mentioned: the patient's wearing his hair unusually long, his being approached by homosexuals, his continuing to dream of a homosexual attack. (Other confirmatory points elicited include the following: the patient's having bleached his hair with peroxide for some time; his having been interested, shortly before puberty, in cooking and helping his mother about the house; his requesting the use of hypnosis during the period of psychiatric evaluation.)

This defence, however, proved unacceptable both to the patient's pride and to his paradoxical super-ego, and was covered over and partially superseded by another, the most superficial one. This defence, consisting in the many varieties of hostile, aggressive, pseudo-masculine behaviour which have been described, has in it elements of denial and of reaction-formation against the previous orientation. In addition, it contains an element of 'the return of the repressed' in that it gives expression to certain drives of an archaic sort, deriving from the patient's oral period as well as certain others of an oedipal origin.

The period between the patient's thirteenth and fifteenth birthdays appears to have been decisive in the formation of much of the current symptomatology. Masturbation was given up during the first part of this period in favour of promiscuous heterosexual intercourse in which disregard for the sexual object was conspicuous. The tempo of the patient's sexual life increased, and his repression of the fact of menstruation in the female was broken down.

Matters seem to have come to a head in the motor-cycle accident, following which the patient first drank his own blood, and then

a week later cut his arm to obtain blood. The accident involved a number of psychic elements. The background situation had an erotic connotation in the heterosexual sense. The accident, itself, brought a threat to the patient's bodily integrity, both general and in a more specific, castrative sense. The sight of the bleeding, prostrate female probably mobilized oral-sadistic (cannibalistic) impulses. As a later reaction there appears to have been some mobilization of guilt over these impulses as well as over the actual fact that the patient had caused a bloody injury to a woman. At the moment following the accident, the patient was aware of extreme inner tension, which was relieved by the blood sucking.

Further questioning supplemented the patient's previous statements about the blood-meal ritual, giving the following list of principal characteristics:

(1) It began at the beginning of adolescence, at about the time the patient (a) discontinued masturbation, (b) began promiscuous heterosexual intercourse, and (c) relearned the fact of menstruation.

(2) The cuts are always made on the left side of the body.

(3) The ritual is always performed alone and its performance kept secret.

(4) The patient's conscious purpose in the act is to reduce tension.

(5) If the patient is forced to wait unduly long between blood-meals, he becomes restless, irritable, anorexic and eventually grossly disturbed.

(6) No pain is experienced in connexion with the ritual. Vegetative signs of excitement—rapid pulse, panting breath, etc.—are conspicuous in its early phases, and are followed by relaxation.

(7) To a limited extent the patient can substitute promiscuous heterosexual intercourse for the ritual as a tension-reducing device.

(8) The patient has tried (unsuccessfully) to substitute cow's blood for his own, and has had repeated thoughts of taking a girl's blood by force (never a man's).

(9) After a period of sucking his blood in the ritual, the patient modified his technique to include the use of his teeth to compress the edges of the wound.

(10) The original frequency of the ritual was once a month; after a period of time the frequency gradually increased, but it underwent a sudden increase when the patient became engaged to a respectable girl and was sexually continent.

One is at once impressed with the extreme condensation of psychic elements, the overdetermination of this behaviour. There is a fusion of active and passive, sadistic and masochistic, oral and phallic components; there is a blend of crime and punishment. The ritual is ego-syntonic, yet it has the characteristics of a neurotic symptom.

In view of its origin in an accident causing damage to the patient's extremities, the ritual would be expected to contain an element of reassurance against castration anxiety, as, indeed, it appears to do. In addition, since the accident must have caused at least a brief period of fear of imminent death and destruction, the ritual appears also to offer reassurance against earlier fears of annihilation, dating from the patient's near-starvation during his oral period of development. These reassurances are in accord with the magical properties and equivalences given to blood in the minds of primitives and psychotics and in dreams. Among these meanings are the equations: blood = milk, blood = semen, and blood = life. At the time of the accident, one major unconscious meaning of the patient's blood drinking seems to have been the preservation of life and virility.

As for the elements of instinctual gratification, there are several possibilities. The patient's consistent use of the left (weak, female) side of his body in the ritual, the sucking-becoming-biting technique (reminiscent of a frustrated nursing infant at the breast), his thoughts of taking a woman's blood by force, his actually having tried cow's blood, the partial interchangeability of the ritual with heterosexual intercourse in which the patient displays no

regard for the object—all suggest that in this act the patient is unconsciously attacking a woman, in the first instance his female companion in the accident, but fundamentally his mother.

It appears likely that he makes this attack on the basis of a pre-existing hostile introjection of her, dating from the early months of his life, when her oral rejection of him was pronounced. One piece of evidence substantiating this impression is the adverse effect on the patient's appetite when he was forced to abstain from the ritual, a fact which suggests a linkage with the nursing period and, specifically, with the patient's refusal to take nourishment as a small infant. The second bit of evidence is the nightmare of the *vagina dentata*, since this concept involves the projection of oral aggression on the mother, and such aggression must have had its origin in an impression of oral rejection by her. Thus the most basic significance of the blood-meal appears to be: 'I suck mother's (my) blood for security and at the same time punish her (me).'

The role played by the patient's skin in this phenomenon is of interest, particularly in view of the serious skin disease incurred by the patient at age eight, in the care of which his mother had an important part. In the ritual, the mouth is, so to speak, the aggressor, and the skin (and blood) the victim. As the mouth is associated with the mother's neglect at one development level, so is the skin connected with her ministrations (probably guilt-laden for the patient) at another.

The significance of blood in the ritual is perhaps not confined to the possibilities already expressed. One is also reminded of the great effort of repression which the patient must have exercised to prevent awareness of the fact of menstruation, despite his having slept in the same room with his mother during the first nine years of his life, an awareness which appears to have been unconsciously preserved in the nightmare of the dentate vagina, if one may judge by the association to the peculiar odour of the 'pulp-mill'. This repression was partially lifted by re-observ-

tion of the phenomenon in the case of the girl-friend and must have been further threatened by the sight of the girl lying prostrate and bleeding after the motor-cycle accident. It appears beyond mere coincidence that during its initial phase the blood-meal ritual was practised at a once-a-month frequency. The possibility exists that in making himself bleed once a month from an (artificial) orifice, the patient was again betraying an identification with the dreaded mother. In this connexion one is reminded of the significance recently attached to bloody pubertal rites by Bettelheim (1954), i.e. the unconscious envy of the woman's mysterious genital organs and their power.

The frequency of the ritual eventually increased, the most noteworthy rise occurring during the period when the patient was becoming emotionally involved with a respectable girl for the first time in his life. Previously, in his relationships with women, the patient had expressed his narcissism and hostility by using them as mere objects for the satisfaction of his sensual desires. When he entered a relationship having tender components but no sensual outlet, the need for some other avenue for the expression of his hostility increased. In addition, in so far as this girl may have approached more closely to the patient's concept of his mother than her predecessors had done, she may have aroused more anxiety in him. The patient feared losing the girl (a repetition of the early fears of losing mother or narcissistic supplies deriving from mother), and he also feared getting her (an intense revival of castration anxiety and of anxiety over his sadistic impulses).

Under these desperate circumstances the patient unconsciously engineered his admission to the hospital, seeking a way out. The period immediately following admission, during which the patient was under security precautions, is of high theoretical interest. For the first time since the institution of the blood-meal ritual, it became physically impossible for the patient to resort to it. Under these circumstances a psychotic reaction took

place in which Robert became restless, confused, hyperactive, anorexic and disorganized. He spoke words wildly, which were taken by the observing medical personnel to indicate self-castrative impulses ('I've got to cut that big thing off!').

One is thus led to consider the patient's acting-out behaviour, in particular its most magical component, the blood-meal ritual, from another standpoint, that of its being a psychotic equivalent. Since the patient's reality-testing had remained generally good until this episode, it might be more nearly correct to view the ritual as a second-last ditch defence against anxiety-rousing needs and impulses of such primitive intensity that the removal of this defence left the patient nothing to fall back upon save psychotic mechanisms of a depressive and paranoid character.

If the blood-meal was a substitute for a psychosis, it was one having definite advantages for the patient, inasmuch as it permitted him to continue to contact reality in many areas and so to obtain a number of satisfactions which he could not otherwise have done. Looked at from this point of view, what are the functions of the symptom? In the first place, it permitted the expression of an enormous amount of oral aggression (having the mother as its primary object) in a scarcely disguised form. The amount and intensity of this aggression might otherwise have had to be dealt with by the mechanism of projection. Secondly, it permitted a great deal of primitive gratification, similar to the satisfaction of taking milk from the breast. Otherwise this passive-dependent gratification might have required satisfaction through an hallucinatory wish fulfilment. One reason that gratification in these rather direct forms was permissible may well have been because of the strong element of punishment which was condensed in the same acts which afforded gratification.

The symptom also appeared to afford the patient some expression of homoerotic strivings, both active and passive, inasmuch as in it the patient did something having an erotic flavour to a man and at the same time a man did something having an erotic flavour to the patient. This fusion of activity and passivity may have been related to the patient's not having to project more than he did in order to make these strivings acceptable to his super-ego.

A question of fundamental importance remains which seems impossible of a full answer in view of the limited data. What had made it possible for this particular patient to deal with his primitive impulses as he had done rather than having had to resort to the much commoner mechanisms of a paranoid schizophrenic psychosis, or a schizo-affective psychosis or, possibly, to an autonomically-innervated form of response such as peptic ulcer? The question appears to form a part of the general one of the aetiological differences between a severe impulse neurosis and a psychosis (or severe organ neurosis). As a matter of fact, the patient's condition seems to lie—whether considered clinically or from the dynamic-genetic standpoint—between the first and second of these entities. The patient acts out—but in a near psychotic way. His primary symptomatic act is alloplastic, inasmuch as he utilizes the somatic muscular system in achieving his ends. It might also be considered autoplatic, inasmuch as the activity is not directed toward the environment, but to effecting changes within the patient's body.

Probably the element of libidinal regression here lies midway between the position in paranoid schizophrenia and that in impulse neurosis. In addition, however, one feels that there must have been more specific, personal features of an historical sort to account fully for this curious behaviour pattern.

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PLEASURE, OBJECT AND LIBIDO

SOME REFLEXIONS ON FAIRBAIRN'S MODIFICATIONS OF
PSYCHOANALYTIC THEORY

BY MICHAEL BALINT*

One of the cardinal changes in psychoanalytical theory that Fairbairn has put forward in recent years is *that libido is not pleasure seeking: it is object seeking*.† As this thesis is likely to cause difficulties in assessing the real importance of his ideas, and moreover, as the ways through which Fairbairn arrived at this conclusion are almost identical with the ways through which a number of highly important and at the same time highly controversial analytical theorems were arrived at, a critical examination of the methodological steps is certainly justified. One may even hope—provided the criticism of the methodology used is just and correct—that some aspects of the controversy might be settled for good.

I propose to start by examining the meaning of the word 'libido'. In order to do so, we must ask what the concept was that Freud denoted by introducing this new term in the *Three Essays on the Theory of Sexuality* (1905) and what has happened to this term during the fifty years of development since its introduction. Following, among others, the poet-philosopher Schiller, Freud recognized as the two great motive powers of all animal and human life 'hunger and love'. To discuss his

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† This is only one of the new ideas proposed by Fairbairn. Although it is a kind of basis on which all the others rest, Fairbairn himself considers that his object-relation theory of the personality leading to a new model of endopsychic structure, replacing Freud's tripartite model of ego, id and superego, is more important. Unfortunately, it proved impossible to discuss this as well within the framework of this paper, and so I have to refer readers to the original publication (Fairbairn's *Psychoanalytic Studies of the Personality*, Tavistock Publications Ltd., London, 1953).

clinical experiences in the field of sexuality he needed a term denoting the intensity factor of all sexual strivings, and as he could not find a proper word for it in the German language he borrowed libido from the Latin. This then was taken over by his English translators, and has now been generally accepted, even by academic lexicographers, as in the Concise Oxford Dictionary.

Freud himself added a footnote, although only from the second edition (1910) onwards: 'The only appropriate word in the German language, *Lust*, is unfortunately ambiguous and is used to denote the experience both of a need and of a gratification' (Standard Edition, vol. VII, p. 135; see also p. 212).‡

‡ 'Hunger' denotes a specific kind of instinct and the experience of the corresponding need, and the same is true of the cognate word, 'thirst'. In the field of sexual instincts, however, 'lust', both in German and in English, denotes, as Freud pointed out, the experience of a need and of a gratification. It is a puzzling fact that the Anglo-Germanic languages treat these two great fields of instinctual experiences in such a different way, which suggests an essential difference in the subjective experiences. Something of this difference was pointed out by Freud in the other footnote quoted above (p. 212), namely, that, especially pre-genital sexual gratifications usually set up an ever-increasing need for further sexual gratification, leading then to a genital end-pleasure. In other words: a certain amount of gratification and a feeling of an increased need are part and parcel of the same experience. A similar process hardly exists in the field of the ego instincts. [Although cf. 'L'appetit vient en mangeant'.] This explanation, however, is incomplete as it does not account for the fact that, especially, the English 'lust' means not pre-genital but first and foremost genital, passionate, sensual pleasure.

Strachey added then to the footnote on p. 135 an editor's note saying: 'Unlike the English "lust" (the German "Lust") can mean either desire or pleasure'; still none of the English translators ever tried to use the English 'lust' instead of 'libido', although its essential meaning is exactly what Freud wanted to express. The probable reason for this was that 'lust', possibly under the influence of the Bible translation, gradually assumed a pejorative meaning, i.e. of a sin. The development in the two languages is interestingly divergent. In German 'Lust' gradually, although not completely, lost its meaning as sexual desire and, particularly in the language of psycho-analytical theory, denotes now all sorts of pleasurable feelings, both sexual and asexual; e.g. the correct German translation of the title of this paper is 'Lust, Objekt und Libido'. In English, however, 'lust' became more and more sexual and, in addition, has almost completely lost its meaning of gratification.

In a way it is a pity that the English translators disregarded 'lust' for the translation of libido. Had they used 'lust' they would have perhaps counteracted the tacit but unmistakable tendency of our theory to forget the original significance of the term. During its fifty years of existence 'libido' has been extended to cover the field of ego instincts as well, has loosened more and more its connexion with its original grossly sexual meaning, and developed into a properly mannered, barely sexual, almost mythical, hazy conception.

It was perhaps this rather hazy nature of the term 'libido' which tempted Fairbairn to propose his thesis in the form he has done. Had the translators used 'lust' instead of 'libido' Fairbairn could never have said 'lust is not pleasure seeking', since this would have been obviously self-contradictory. In order to describe his important clinical experiences he would have been compelled to invent a new term for what he now calls libido, or would have had to formulate his theoretical conclusions in a different way.

This semantic excursion, however, shows only one of the difficulties when trying to

evaluate Fairbairn's ideas. Another, still more important, difficulty, and one which he shares with almost the whole of analytical literature, is what might be called neglect of parallax by the observer. I am afraid that here again I must digress to show what I mean. I think we may all agree that 'instinct' is an abstraction, unobservable as such, as it is the result of inference. What can be observed in the field of instincts depends also on the observer's position, i.e. his parallax. If he is outside the individual, that is an external observer, what must impress him foremost are the various relations to objects. Intrapsychically, that is to say by the individual himself, many more phenomena related to an instinct can be observed, such as: intensity of desire; intensity of gratification or frustration; the direction of the desire, subjectively experienced as attraction or repulsion felt usually as originating in the object; a feeling tone—as often as not incorrect—characterizing the need as either sexual or asexual; etc., etc.

During his whole scientific career Freud's chief interest centred on intrapsychic observations. His main endeavour may be described although somewhat simplified, as trying to get hold of the intrapsychic processes *in retrospect*, i.e. in the form in which the external and internal events of the patient's life were remembered (or recollected) and then reported in the analytic situation. One of his most frequently quoted phrases is: 'It is a triumph of treatment if repetition can be changed into recollection.' Another synonymous version of the same phrase was italicized by Freud himself: '*Analytic treatment should be carried through as far as is possible in privation—in a state of abstinence*' (1918, p. 396). In other words: gratification of the patient's repetitive tendencies, 'acting out' in the analytic situation, should be restricted to a minimum and instead of it recollection encouraged. Although Freud himself stated in the same paper: 'A certain amount (of gratification) must be permitted to him (the patient) more or less according to the nature of the case and the patient's individuality' (1918, p. 398), all

such 'gratifications' or cases of 'acting out' were considered with grave suspicion.

In the last thirty years or so a definite change of mind has set in, and 'repetition' or 'acting out' in the analytic situation has been viewed less and less suspiciously and more and more scope allowed to it. Gradually more and more analysts have come to recognize—what I have kept on pointing out for more than twenty years—that not every 'acting out' by the patient is mere repetition; it may be partly, or even mainly, conditioned by a response either to the analytic situation in general, or to the analyst's actual behaviour, i.e. his technique. It is not surprising that as a first step towards full acceptance of this thesis, many analysts admit only that 'acting out' may be—or even is—due to the faulty technique of the analyst. But if a 'disturbed transference' can be thought of as caused by the analyst's technique, i.e. by his shortcomings, I cannot see how the opposite can be denied, namely that a proper 'undisturbed transference' is also conditioned by the analyst, i.e. by his correct technique.

In other words, the whole behaviour of a patient under analysis, including his way of associating, are phenomena of an object-relation—viz. the relation between the patient and his analyst—the development of which is observable directly in the here and now situation. Several analysts, including among many others both Fairbairn and myself, have tried to piece together these first-hand clinical observations and to infer from them a developmental theory of the human mind, based on the actually studied 'transference phenomena', that is to say our patients' behaviour before our eyes. What one usually omits to state is that this behaviour is always influenced: (a) by the general set-up of the analytic situation, and (b) by the—possibly never quite completely controlled—counter-transference of the analyst. In other words, we commit the fallacy of describing the transference phenomena as belonging to the field of one-person psychology instead of evaluating them as phenomena belonging to the field of two-

person psychology. Even Fairbairn, who is one of the staunchest advocates of the importance of object-relations, does not seem to be fully aware of this fact. To avoid a possible misunderstanding, I wish to emphasize as strongly as possible that the main source of all transference phenomena is, of course, the patient's past. But it must be stressed equally strongly that no transference can take place in a one-person situation: that is, no transference is possible without a second person, the object. What actually will happen when subject and object—the patient and his analyst—meet, will be determined by the contributions of both of them, which means by the patient's personality and illness and by the analyst's—good or bad—technique.

A special case of this general thesis is so important for our topic that I have to discuss it in some detail. I have already mentioned that, although we quote again and again Freud's advice that analysis should be carried out in abstinence, we do not like to be reminded that this is never exactly true. Certain gratifications in the analytic situation are absolutely unavoidable, and some others are even highly desirable. The only thing that can and indeed must be reasonably demanded is that both patient and analyst should be as fully aware of these gratifications as is humanly possible. There is, however, a very important additional restriction of these 'pleasures' permissible in the analytic situation. This restriction concerns their intensity factor, i.e. exactly what the original meaning of 'libido' or the English 'lust' was. It is only a certain amount—and a certain kind—of pre-genital gratification that is permissible. To mention a few: oral gratification by offering the patient complete freedom of speech; or a feeling of pleasant, fairly warm, friendly security by the analyst providing a comfortable couch and a normally heated room, etc., etc., and, above all: by creating the most gratifying, in the true sense unique, feeling in the patient that his analyst will be safely there, listening in a friendly and sympathetic way to the revelations of the patient's whole person-

ality. But, and this is a very grave 'but', no genital, or, for that matter, any kind of orgasmic pleasure is ever allowed in the analytic situation.

This quite general restriction brings in its wake unavoidable consequences. To mention a few of them: our theory has become more and more biased by too much emphasis being laid on pre-genitality—I mean pre-genital pleasures as well as pre-genital object relationships—and perhaps too little on genitality, especially on the function of orgasm. Parallel with this, our ideas about the intensity factor of pleasure, especially of crudely sexual pleasure, have been becoming more and more vague. Our theories of gratifications, on the one hand, and of pleasant and unpleasant tensions, on the other, have hardly developed since the time of Freud and Ferenczi. Instead, analytic progress has succeeded in developing more and more in detail a highly important theory of frustration. This, then, has led to a number of psychoanalytic theories about human development which, although occasionally contradicting each other, still have the same kind of bias—the observer's parallax, imposed upon him by the limitations inherent in the analytic situation—that is to say, an almost complete neglect of the influence of the intensity factor of pleasures, and a preoccupation with frustration and its consequences.

Here is perhaps the place to mention the importance of a 'standard technique'. If the conditions obtaining in the analytic situation, especially the 'pleasures' offered to the patient, are securely controlled, i.e. if the analyst's contributions to the analytic situation are fairly well standardized, it is claimed that the transference phenomena produced by the patient and observed by his analyst will almost entirely originate in the patient's personality and illness. This claim is based upon a very dangerous half-truth. It is true that variations in the observable transference phenomena under standardized conditions will be certainly due to the patient's individual features, but what about the standard transference phenomena which can be observed

almost invariably in every case? Should these standard, invariable features be attributed to fundamental qualities of the human mind, do they represent important stages of the development of the libido or of human object relations, or are they only responses provoked by the 'standard technique'? Very likely they will be a mixture of the two, but how to sort out their correct proportions!

The danger of accepting regularly occurring transference phenomena as fundamental qualities of the human mind has become nowadays, with the appearance of the various 'schools', still greater. Every school on either side of the Atlantic has developed its more or less well-standardized technique. Each analyst trained by that particular school endeavours, naturally, to use the 'correct' i.e. the standardized technique, of his school. If my ideas are right, this will result in that almost all the members of the one school will observe very similar transference phenomena in their patients, viz. more-or-less standard responses to their standardized 'correct' technique. As the experiences of several, independent observers—although all of them belonging to the same school—accumulate and seem fully to confirm one another, it is almost impossible not to assume that these 'constant' observable transference phenomena are the essence of human emotional development and to avoid building a comprehensive theory on these observed 'facts'.

All these attempts at theory making are, to a certain extent, justified. After all, nowadays we all agree that there is no such thing as an infant by himself, that is without a mother or some nursing adult. Conversely, it means that any two-person situation resembling the primary one—in that in it only one partner (the infant) can make demands and the other (the adult) may be taken for granted—can be thought of as an experimental reproduction and phenomena observed in it can be used as starting-points for theoretical extrapolation. It is in this sense that the use of phenomena observed in the analytic situation is justified as a basis for a theory of human emotional

development. This statement implies something which I wish to state explicitly as it is important to me. The implication is the tacit acceptance of the non-existence, or of the non-importance, of any original one-person situation in the human development such as the theoretically assumed primary narcissistic state—a step advocated by me ever since 1932.

There is one more, highly important, assumption inherent in all these theories, which is never mentioned and still less examined. Various theoretical propositions treat 'transference phenomena', as observed by the analyst in the analytic situation, as an unselected, fully representative sample of human relations, completely forgetting that all these phenomena are always limited by the analytic situation in general, and in particular by the analyst's individual technique. Once explicitly mentioned it is quite obvious that a normal mother's role towards her child and the analyst's towards his patient are far from being the same. It is inherent in the two situations that, on the whole, the analyst must be more frustrating and the mother more gratifying. The effects of this fundamental difference have not yet been properly studied, instead most theories have taken the 'facts' observed in the analytical situation as an unselected, complete and fully representative sample of *all* primitive human relationships. This is obviously unjustified. Therefore 'facts' observed in the analytic situation cannot be accepted—without further inquiry into the limitations inherent in the analytical situation in general and in the analyst's individual technique in particular—as an exclusive basis for a theory of human emotional development.

After this excursion, let us return to Fairbairn who says, in the synopsis of his views (p. 162):

The main features of my reformulation were to the following effect:

1. Libido is essentially object seeking.
2. Erotogenic zones are not themselves primarily determinants of libidinal aims, but channels mediating the primary object-seeking aims of the ego.

3. Any theory of ego-development that is to be satisfactory must be conceived in terms of relationships with objects, and in particular relationships with objects which have been internalized during early life under the pressure of deprivation and frustration [etc.].

If we bear in mind what I have said in the previous paragraphs about errors and limitations due to parallax we not only understand better what Fairbairn says in these points, but to a large extent we would agree with him, if only we could be allowed to qualify his conclusions by adding that they are valid only so far as the limitations of the analytic situation and Fairbairn's individual technique go. That is to say, we see that he has described, exactly and faithfully, what he has observed in his patients while they were subjected to the influence of the psychoanalytic situation as determined by Fairbairn's present technique.

Retranslated into a two-person-psychology language, his generalizations mean:

- (1) Only little fully gratifying pleasure is observable in the analytic situation, especially pleasure of the high intensity type; but in his search for some gratification there is an almost inexhaustible urge in the patient to develop new and newer object-relations to his, on the whole, frustrating, analyst.

- (2) The role of erotogenic zones in the analytic situation is negligible as compared with the very great urge to develop object-relations to the analyst.

- (3) The patient's development, as it may be observed in the analytic situation, is under the constant and overwhelming influence of the internalized—frustrating and depriving—analyst.

Thus there is no doubt about the correctness and validity of the clinical observations as summarized by Fairbairn. The only problem is how far his and similar observations may be used to build upon them a complete theory of the development of the human mind. To put the question in this way is tantamount to begging the answer. As I showed above, observations made in the framework of the analytic situation can be used only to add

something to, or to modify, our existing theories, but not as the exclusive basis for a complete theory. To return to our main topic, it is a pity that Fairbairn takes the view that libido is not pleasure-seeking but essentially object-seeking. If I am right the correct way to describe his clinical experiences would have been something like this: in addition to the hitherto well-studied quality of libido, i.e. its pleasure-seeking tendency, clinical observations have proved beyond doubt that its object-seeking tendency is at least equally important, especially in patients while under analysis. The further problem arises now how to evaluate the relative importance of the two tendencies of the libido—pleasure-seeking and object-seeking—first for the adult patient under analytic observation and then infer from it the possible roles of these two tendencies during the development of the human mind.

During this very delicate work the practising analyst, turned now into research worker, must not forget the ever-present danger that a part, and heaven knows how big a part, of what he observes—the transference phenomena happening under his eyes—may have been produced by himself, viz. they may be responses to the analytic situation in general or to its particular variety

created by his correct, or not so correct, technique.

I wish to add an afterthought. Physicists have learned to their own cost, that when making any observation whatever the temperature and the pressure obtaining during the observation must be carefully measured and recorded. The reason for this is the empirical fact that there are only very, very few phenomena such as gravitation which are not influenced by changes of temperature or pressure. This is a fairly new knowledge, perhaps 200–300 years old. We analysts behave as if we knew that the processes we observe are independent of the emotional temperature and pressure of the situation in which they occur. Very likely just the opposite will be the case. That is why I propose that to every analytical observation be added a description of the emotional tension—whether excited, very tense, or relaxed or even calm—and of the emotional temperature—seething with emotions, indifferent, or even icy cold—under which they were made. It is fair to expect that very valuable material will be produced in this way, and that we may be able to find out a good deal about the ways of the various techniques, i.e. about the observers' parallax.

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REVIEWS

The Technique of Psycho-analysis. By EDWARD GLOVER, M.D. (Pp. 404, 35s.) London: Baillière, Tindall and Cox. 1955.

This book is written in three parts, of which Part I is the most important. It is perhaps the most systematic account of psychoanalytical technique that we possess—by one of its masters, one who combines the wisdom that springs from clinical experience with a high degree of theoretical acumen. Ostensibly, this book is written for beginners in psychoanalysis. But it may assuredly be read and consulted with great benefit by the experienced. As a reference book it sets a standard technique which is of particular value also for those who may deviate from the author's technique, and it may serve as a check for them in orienting themselves as to whether the direction in which they move is a progressive or a retrogressive one.

Different phases of psychoanalytical treatment are taken in turn, and scrutinized: such as the opening phase, the transference neurosis and the terminal phase. Due weight is given to the 'defence resistances' and the problems of counter-resistance and counter-transference. The author takes up the problems of indication and prognosis on the basis of diagnosis, a much neglected field. Anxiety hysteria and obsessional neurosis, psychosexual inhibitions, social and work inhibitions, as well as milder forms of reactive depressions, are amongst the conditions most accessible to psychoanalytical treatment. Severer forms of obsessional neurosis, fetishism, drug addictions, alcoholism and more chronic personality disorders are moderately accessible. Manic-depressive states, schizophrenias, paranoia and severely psychopathic characters must be considered as intractable.

Part II is a re-edition of a questionnaire research which may be said to be somewhat out of date. However, for the expert it makes very interesting and thought-provoking reading, and is well worth republishing. Light is thrown on a wide range of practice and opinion in relation to technical problems, such as those of interpretation, transference, termination, amongst others.

Part III consists of three papers. The first, on

The Therapeutic Effect of Inexact Interpretation, is a classic in psychoanalytical literature. The second was read as an introduction to a symposium at the International Psycho-Analytical Congress at Marienbad in 1936. It concerns the theory of therapeutic results of psychoanalysis. The third was read at the 18th International Psycho-Analytical Congress in London in 1953. It is a critical account of the many controversial issues in regard to therapeutic criteria, and an attempt to classify the relevant factors.

The writer's approach is at times somewhat polemical and provocative. He questions the scientific value of many contributions in the field. This attitude is obviously not too popular with psychoanalysts. However, the author's seriousness of purpose is not in doubt, and his challenge must be respected and should help to raise our critical standards.

S. H. FOULKES

The Interpretation of Dreams. By SIGMUND FREUD. Translated from the German and edited by JAMES STRACHEY. (Pp. 692 + xxxii. 21s.) London: George Allen and Unwin. 1955.

Surprising as it may seem, this is the first entirely satisfactory translation into English of a work which many regard as Freud's greatest. It is based on the eighth (1930) German edition, the last published during the author's lifetime. Every alteration introduced in the book since its first edition has been recorded. Unlike the previous translators who, when they found it difficult to translate a pun, either omitted the dream or replaced it by another dream of their own choice, Mr Strachey keeps the original German pun and explains it to the reader. He rightly felt that this is the only fair way of presenting a scientific classic in a foreign language. He has admirably succeeded in his difficult task. In his introduction he refers to the Fliess correspondence and the 'Project for a Scientific Psychology' which preceded and foreshadowed the 'Interpretation of Dreams'. The present translation is included in the standard edition of Freud's works, but it is now available as a separate volume. This is to be

welcomed in view of the unique importance of this book for everybody interested in the function of the human mind.

E. STENGEL

Psychoanalytic Studies of the Personality. By W. R. D. FAIRBAIRN. (Pp. 312. 25s.) London: Tavistock Publications. 1952.

This book contains the major part of Fairbairn's published work, but its most important section consists of the theoretical papers outlining his views on endopsychic structure which he developed during the war. They have been amended and brought up to date to form a remarkably consistent whole, portraying the development of his views in a way which is easy to follow. He claims for them nothing less than that they are an entire rethinking of basic psychoanalytic theory, yet he is truly psychoanalytic and his views are an object lesson to those critics who like to conceive of psychoanalysis as a fossilized devotion to a code laid down by an idealized, even deified, father.

The new metapsychology he advances is based on concepts more in keeping with present-day scientific thinking, which were not therefore available to Freud at the time of his first model. Starting from his basic premise that libido is object seeking, he makes out a strong case to support his contention that energy cannot be thought of as having an aim of itself but can only be conceived of as operating through a structure. He has therefore recast the whole present theory of endopsychic structure. The id, as a reservoir of impulses in conflict with super-ego demands, is abandoned. For Fairbairn these impulses, which are object related, are therefore ego structures and his conception of repression is that it is objects or structures which are repressed. This repression is accompanied by a splitting of the primitive ego which gives rise to a basic endopsychic situation. The old id and super-ego are now both thought of as ego structures or split off parts of the ego, the libidinal ego and the anti-libidinal ego respectively.

On this journey Fairbairn has found it necessary to reconsider other psychoanalytical postulates. Thus the theory of erogenous zones is felt to be incompatible with object-relations theory, these phases being for him techniques employed by the developing ego in its relationships with objects. He concedes a stage of infantile dependence—the oral phase—followed by a transitional

stage leading to the stage of adult mature dependence. Obsessional, paranoid, hysterical and phobic mechanisms are to be thought of as means employed by the ego to control object-relations in the transitional phase. The emergence of schizoid and depressive states, originating in the first stage of ego development, are also defended against by these mechanisms.

Various difficulties are encountered in attempting to assess the validity of Fairbairn's new structures. It is a great pity that the clinical papers antedate the theoretical ones for the latter, though graced by an exceptional lucidity, give insufficient impression of Fairbairn at work, and therefore fail to provide the means by which they can most easily be judged and compared. For example, his patients have dreams which admirably fit his ideas on endopsychic structure (actually they are the starting-point for some of them), nevertheless, they give rise to the feeling that they may result from his type of interpretation rather than be the origin of his concepts of structure. His use of transference, which has been one of the special concerns of British psychoanalysis, and the vehicle of so much insight, does not emerge very clearly. That he uses it is abundantly evident but not always in what way. He gives the impression at times that the figures of his patients' inner worlds act out their drama upon a stage which he as the analyst watches along with the patient's central ego, rather than of an analyst as a person deeply involved in the constantly changing projections and introjections, loved and hated in the place of the original objects because he is actually involved in the present needs of his patients. In his early scheme of development he suggests that the failure of the infant to feel love as a person in his own right gives rise to a reactivation of early schizoid mechanisms. He therefore feels that barren interpretative analysis of impulses plays straight into the hands of schizoid defences and that therefore something more is needed, namely, that the patient has to experience the analyst as good. Much of this would meet with agreement, for there is a definite tendency nowadays for many analysts to be less of a 'blank screen' than formerly, but it is not easy to test the validity of Fairbairn's views in the absence of a clearer picture of what he actually does and of what it means to be a good object to the patient. Because they are so important, it is precisely such points which need to be discussed and which might become clearer through

a closer link between clinical material and theoretical abstraction.

The sharp definition Fairbairn gives to objects and structures in the personality at times gives an impression of too great sophistication in these structures. For example, although he talks quite specifically about ego development, it is difficult not to conceive of his original pristine unitary ego, which becomes split into three parts, in far more sophisticated terms than would appear to be warranted. The clarity of his objects is perhaps the product of abstraction rather than of actual experience, though localization of feelings into specific identifiable objects as in fairy stories and myths is one of the ways of defending against the much more threatening anxieties that the immature ego must experience. He is right in laying stress on the fact that impulses are inseparable from structures, but there is a suspicion that in his conception of objects things have gone rather too far in the opposite direction. Thus, when he talks of the return of bad objects, it is difficult not to feel that they have achieved a life of their own, that, for instance, the aggression in their persecution is theirs and not the subject's own aggression. It is at this point too that questions may be asked if these are not unnecessarily 'external' in the analysis and not experienced sufficiently in the person of the analyst.

Since the whole of his theory is built on object relationships rather than on instinctive drives, there is an apparent tendency to overlook the biological aspects of libido. The inborn patterns of behaviour, whether primarily object seeking or not, become inexplicably woven with the first satisfying objects to form ego structures. Here the insights gained from studies of animal behaviour and the significance of perception in ego development can be fitted into Fairbairn's scheme. This is important because rightly attempting to infer back the earliest psychic processes of all does set loose an old stalking horse, what is the child's real or observable experience.

Fairbairn holds to one significant point of departure from the views outlined by Mrs Klein and her followers. He agrees that the psychic attitude of an infant is oral and internalizing, and he shares the view that objects which are unsatisfying and frustrating are internalized as bad objects as a primary defence, though he believes that they are in fact split into their exciting and

rejecting characteristics. He can see no need for internalizing good satisfying objects, but in his 1951 and his later one on hysteria (this *Journal* 1954)—which should be read in conjunction with this book—he considers that the first internalization is of a pre-ambivalent object because it is in some measure satisfying and in some measure frustrating. He discounts the concept of a death instinct which may be most pertinent to this particular situation. He feels that a child's good satisfying experiences are simply enjoyed and result in good development. Theoretically, at least, the ensuing internalizations and splits in the ego need not occur, although in his later paper he points out that a completely satisfying relationship never occurs in practice. But is a child's experience of satisfaction a simple enjoyment? Perhaps the motive for internalizing, the motive of the instinct pattern, is not just relief of tension or gratification by an object, but that death will result without its operation. There is a mounting inner tension which demands satisfaction or death is increasingly threatened. A primitive awareness of this tendency to run down is maybe the psychic experience of the death instinct. A frustrating or unsatisfying object enhances rather than relieves this threat, and is therefore internalized and split off in an attempt to control it. Aggressive responses like the biological excitement seen in threat or agonal situations are a reaction against overwhelming danger.

The same questions are raised in his first and most penetrating paper, *Schizoid Factors in the Personality*. He arrives at the conclusion that an infant may experience anxiety over destroying his libidinal object through his experience of emptying the breast. One of the basic schizoid mechanisms is a child's need to keep its love shut in. Its love is felt to be dangerous because it is neither loved in its own right by its mother nor is its love valued as a good thing by her. This is logically consistent and extremely clear, but its very clarity gives rise to doubt. What does to be loved in its own right mean? Does this not imply the relieving of intense anxiety rising in the child by its mother, anxieties which must be related to its physiological mechanisms and its relative helplessness to deal with them. Fairbairn says 'in circumstances of deprivation emptiness comes to assume quite special significance for the child'. Although this is elaborated later, it seems some-

what of an understatement. The threat to its existence, the ensuing aggressive response, and perhaps the child's anxieties concerning the intensity and destructiveness of its needs, have as their counterpart in Fairbairn's views the child as a rather more passive victim of external circumstance. It is interesting, therefore, in this connexion that not only does he consider the basic position in the personality to be a schizoid one, but he deprecates the over-concern with depression into which psychoanalysis has been led. He cannot, in fact, see any justification for it in the light of his own clinical experience. It is hardly likely that patients are so very different or that national characteristics either in patient or analyst can account for this absolutely. It is therefore a situation calling for a good deal of further discussion.

This is a most rewarding book that deserves serious study and discussion. It has been suggested that Fairbairn has suffered from his isolation from other psychoanalytic activities, but this isolation and the impact of the war have given him the opportunity for reconceptualizing which might not have been possible otherwise. Writing this review four years after their publication, it is pertinent to observe that Fairbairn's views have only just begun to make much impact and to inquire why this should be so. Because of his isolation he has not taken an active part in psychoanalytic training which has not therefore provided him with a following ready to bring forward and discuss his ideas. He gives credit to the work of Melanie Klein as a starting-point of his own ideas, but his sharp divergences from her point of view have perhaps produced an unduly conservative defensive reaction to his theories. Notwithstanding, these papers must be studied by any serious student of personality structure and Fairbairn's ideas, which must influence the course of psychoanalytic thinking and research, need much more to be built into its whole fabric.

R. E. D. MARKILLIE

To Define True Madness. Commonsense Psychiatry for Lay People. By HENRY YELLOWLEES. (Pp. 172. 2s. 6d.) Harmondsworth: Penguin Books. 1955.

This is a Pelican and condensed edition of a work which, to quote the author, 'though accurate as to

fact and written with complete good humour, displeased several critics, both amateur and professional'.

One's first impression is that the author tilts at too many windmills, and that in the world of psychiatry he feels too often that everybody is out of step except himself. The book is simply and lucidly written, and accurate in fact if sometimes over-dogmatic in opinion. As it is perhaps doubtful whether a book written for the lay public should be reviewed by a specialist alone, I add a tribute from a female relative; she told me that though she was ill in bed with infective hepatitis and 'feeling terrible' she found the book one of absorbing interest.

J. B. S. LEWIS

The Psychology of the Criminal Act and Punishment. By GREGORY ZILBOORG, M.D. Psycho-Analytical Epitome, no. 5. (Pp. 150. 10s. 6d.) London: The Hogarth Press and Institute of Psycho-Analysis. 1955.

This book is an expansion of the Yale lectures given by the author as the recipient of the Isaac Ray award for 1953. It gives an excellent picture of the conflict between psychiatry and the law, and unlike many books written in U.S.A. draws numerous examples from this side of the Atlantic. Dr Zilboorg contends that it is the business of the criminal courts to administer justice and not merely to administer the law; that moral values must be understood and appreciated, and that 'more and more psychological knowledge must be allowed to be admitted into the court-room'. He deals with the psychology of lawyers, psychiatrists and jurors, as well as with criminals, and he points out, what surely would shock some lawyers, that 'a decision in a given criminal case is pre-eminently an emotional decision'. In the last chapter he inveighs against the present system of an expert witness for each side as a 'corrupting, immoral principle', and lays down (on p. 133) rules of professional conduct for the qualified psychiatric expert who should only appear as 'a friend of the court'.

It is doubtful whether he stresses enough the difference in training of lawyer and doctor, and the absence of any requirement in the former's training in the social sciences and psychology, so that many judges are satisfied with, and some even demand, a purely rational solution of what is in its

essence an emotional problem. To sum up, the book can be thoroughly recommended; most psychiatrists giving evidence in our courts to-day would benefit by giving heed to Dr Zilboorg's arguments. One hopes that misprints will be eliminated in future printings.

J. B. S. LEWIS

Clinical Papers and Essays on Psycho-analysis.

By KARL ABRAHAM. (Pp. 336. 25s.)
London: The Hogarth Press and The
Institute of Psycho-Analysis. 1955.

The appearance of this second volume of Karl Abraham's papers will be welcomed by all who are interested in psychoanalysis. The absence of such excellent translations has long prevented many, including the reviewer, from becoming acquainted with such well-known essays as those on Segantini and Amenhotep IV. In addition to the group of five essays there are twenty-four other papers, twenty-one of which are clinical. As Ernest Jones points out in the Preface, these papers have more than a mere historical interest. They illustrate Abraham's outstanding capacity for presenting clinical observations in a way which places these papers at the forefront of psychoanalytical literature.

THOMAS FREEMAN

Ausgewählte Vorträge und Aufsätze. Band II.

Zur Problematik der psychiatrischen Forschung und zum Problem der Psychiatrie.
By LUDWIG BINSWANGER. (Pp. 362. Swiss Fr. 21). Bern. Francke Verlag. 1955.

Binswanger is one of the most erudite and cultured psychiatrists of to-day. Besides being a master in all branches of psychiatry, including psychoanalysis (he was a disciple and friend of Bleuler and Freud, and four of the papers in this volume deal with the critical appreciation of their work and personality), Binswanger has a scholarly knowledge of the whole of psychology and philosophy, and he is at home in the literature of at least six languages. His main preoccupation in the field of psychiatry has been with its methods and its philosophical basis. In his 'Einführung in die Probleme der Allgemeine Psychologie' of 1922 his approach to the basic problems of psychology was methodological. After Heidegger had published his ontology he was no longer satisfied with

this approach and felt that the problem of 'understanding' needed a deeper philosophical foundation in Heidegger's existential analytics. He therefore replaced his earlier book by his 'Grundformen und Erkenntnis Menschlichen Daseins', 1941. The majority of the present papers deal with this more comprehensive understanding of man which Binswanger now calls 'existential analysis'. It differs from psychoanalysis and other forms of 'understanding' psychologies in that it considers the psychological phenomena not only in their relationship to their genesis, or to the whole of the person, or to the relations with fellow-men, but as existential forms of 'being in the world'. Binswanger asks us to understand the man and the psychological phenomena in the widest possible context because existence and world are inseparably interlinked. He regards existential analysis as a pure science in contrast to the applied studies of psychoanalysis which always are linked with its therapeutic aims. He thus avoids the undue haste with which psychoanalysts often turn to the genetic connexions of the phenomena at the expense of seeing and describing their wider functional connexions and meaning. Psychological research of every kind seems, however, precariously poised between the two dangers of aiming too quickly at practical application or of losing sight of the practice and becoming sterile and academic. Traces of the latter danger can be found even in the writings of this extraordinarily learned author (and how much more were they to be expected in the work of lesser men than him). For example, in his discussions on the spacial directions of 'up' and 'down' Binswanger reflects mainly on the temperamental use of these words as they are expressed in the English usage of 'high versus low spirited' or 'high-minded', 'lowly', etc. The practising therapist will regard these connotations as of secondary importance to those which emphasize the structural connexions between 'down' and 'earthly', 'material', 'motherly', and the connexion between 'up' and 'flight from the mother', 'maleness' and 'spirit'. In these connexions the symbols stop being linked so unambiguously with positive and negative valuations as they are in Binswanger's account. When studying the present papers on existential analysis one should also consult the first volume of these papers (Bern, 1947), particularly the last paper therein 'Über die daseins-analytische Forschungs-

richtung in der Psychiatrie'. The collected papers, and the other two books I mentioned, are of the highest interest to everybody who wants to orientate himself about the philosophical basis of psychiatry. Though their subject-matter is far from easy these essays are clearly and beautifully written.

KARL M. ABENHEIMER

The Object Relations Technique. By HERBERT PHILLIPSON. (Pp. x+224. 21s. Test Material, 52s. 6d.) London: Tavistock Publications as a td. 1955.

over
new test offers no competition, either to the T.A.T. or to the Rorschach. It stands in its own right as an excellent technique for eliciting projective data of a kind not easily obtained by means of other projective tests. Nevertheless, it borrows something from the methods of both Rorschach and T.A.T. From the former it borrows stimulation arising from texture, chiaroscuro and colour, from the latter the situation where a story has to be constructed to fit a picture. As its title implies the test aims to define the object relations system of the subject tested.

The material consists of three series of four pictures and a blank card. Each of the three series presents the main object-relations situation: a one-person, two-person, three-person and a group situation. The first series of pictures are drawn in light charcoal shading, giving a quality of texture almost the same as card VII of Rorschach. In the second series the drawings and the depth quality of the shading is similar to that of cards IV and V of Rorschach. In the third series the pictures are drawn in soft, light or medium lines and the figures are drawn with more detail. In this series the pictures have particular areas of colour designed to present a strong emotional challenge, as with the coloured cards of Rorschach.

The author has been most fortunate in his two illustrators, Miss Carlisle and Madame Dornmondie, who have produced pictures which are pleasant, stimulating and at times challenging.

The reviewer has had an opportunity of trying the test out with some twenty mental hospital patients and even with this small number, he is convinced that the technique produces new and valuable material not obtained as easily in any other way.

The test material is accompanied by a book which gives the theoretical basis of the technique, a description of the test, and chapters on analysis, interpretation and normative data. In the chapter on the theoretical basis of the test the author rightly criticizes projective methods for the inadequacy of their theoretical rationale. He points out, however, that there is now sufficient dynamic viewpoint common to the main areas of research to suggest that the concepts in use are closely related. Thus Frank, in discussing the process of projection, and Bruner, describing the process of perception, use very similar language, both writers recognizing the interdependence of personality and perception.

The author goes on to give a short but clear account of object-relations theory, and suggests five variables which, he says, determine the clarity with which the dynamic tension systems of the subject are revealed in terms of object-relations. These are: the motivational situation; the degrees of tension in the individual; the 'fit' between the stimulus situation and the dynamic tension system of the individual; the reality content of the stimulus and the reality context in which the stimulus situation is presented.

The Object Relations Technique has been constructed to present stimulus situations related to the last three of these situational variables. The first series of pictures are ambiguous and designed to allow maximum 'fit' between the object-relations system of the subject and the stimulus. The second series is more structured and provides the 'reality content' which may confirm or contradict unconscious expectancies and which may provide an opportunity for the production of defensive material. The third series, which includes colour, provides the 'reality context' which relates to the emotional atmosphere in which the stimulus situation is presented. Thus the four basic object-relations situations (one-, two-, three-person and group) are systematically varied so that emphasis is placed on each of three situational variables in turn.

The book includes one very long case study (57 pages) and several shorter ones. The long case study consists of a minute examination of the stories given by a patient to the thirteen cards, in which the author allows himself a degree of speculation about the significance of the material which many people would consider unjustified. The shorter case studies are, in the reviewer's

opinion, more satisfactory illustrations of the value of the technique.

The normative data given consist of a clinic sample of fifty patients and a research sample of forty adolescent girls. In both cases responses to each picture are analysed in terms of human content, reality content and reality context. These data are interesting, but, as the author himself says, are not yet adequate for standardization purposes.

This test will be widely used by clinical psychologists, whether familiar with object-relations theory or not, as it undoubtedly produces projective material the value of which is by no means dependent on psychoanalytical interpretation.

RALPH HETHERINGTON

The Clinical Interaction with Special Reference to the Rorschach. By SEYMOUR B. SARASON. (Pp. x+425. \$5.00.) New York: Harper Brothers. 1954.

In the author's words: 'This book stems from the belief that practically all clinical problems are concerned with data obtained from an interpersonal interaction and that regardless of how interactions differ certain variables are always operative and must be taken into account.'

Thus the book reflects the contemporary clinicians' interest in the nature and dimensions of interpersonal relationships in the diagnostic or therapeutic setting. Dr Sarason's discussion of the variables involved in such relationships, based on experimental evidence, helps to strengthen the more usual psychodynamic formulations. However, this takes up only a quarter of the book.

The author then sets out to illustrate the variables and their evaluation using the Rorschach technique. The major part of the book in fact becomes a technical discussion of the Rorschach test, ending with some illustrative protocols and interpretations. By itself this is a valuable commentary on, and review of, Rorschach procedure, but it adds very little to the thesis. The author seems to have forgotten that this section was intended to illustrate aspects of clinical interaction and not to provide a Rorschach compendium. As it stands, this makes for a badly balanced presentation.

It is unfortunate that Dr Sarason has swamped his arguments so unnecessarily, for he has much

to contribute, both in his thinking and experiments, to a systematic understanding of variables in the two-person clinical situation.

R. M. MOWBRAY

Swift and Carroll, a Psychoanalytic Study of Two Lives. By PHYLLIS GREENACRE. (Pp. 306. \$5.00.) New York: International Universities Press. 1955.

Swift's father died seven months before Jonathan was born; at the age of a year the child was abducted to England by his nurse; at four years he was returned to his mother, who almost immediately left him, herself returning to England. For the boy there followed an 'institutional life' at school and Trinity College till the age of twenty-one, after which he entered the household of Sir William Temple. Here his already ambivalent quest for a quasi-filial acceptance failed, and his equally ambivalent relationship (pseudo-paternal, pseudo-fraternal, sado-masochistic) with Esther Johnson aged eight, the future Stella, had its beginning.

Charles Lutwidge Dodgson was the third child, and oldest boy, in a family of seven girls and four boys. Before he was eighteen months old he was an elder brother; before he was five, he was an elder brother three times over. His parents were neither stern nor actively rejecting; the family was 'sustained and perhaps somewhat overcast by the Christian doctrine of love... All this may have contributed to his precocity, yet it can hardly have helped but increase his jealousy and resentment of the younger children in a family setting in which rivalry and temper were silenced by maternal kisses and paternal examples of righteousness.'

These bald outlines—the facts but not this bare statement of them are drawn from Prof. Greenacre's book—read like summaries from a children's psychiatric department. Each child, the rejected and the enfolded, grew up as a neurotic, crippled personality, incapable of mature adult love, and caught in the tangle of oedipal and pre-oedipal regressions. Prof. Greenacre compares Swift's psychopathology to that of certain fetishists, while Dodgson-Carroll showed a profound splitting trend not only in his double career and in the content of his works but in marked depersonalization symptoms described or hinted in his letters.

But it is not Jonathan Swift, Dean of St Patricks,

or Charles Dodgson, Mathematical Lecturer at Oxford, with whom we, or the world, or this book, are mainly concerned. The neurotic conflicts of these two personalities were not only acted out in life and suffered as symptoms, but were also expressed in phantasies which have given to the literary works which enshrine them the stir and appeal of their universal infantile content. Dr Greenacre re-surveys and re-interprets this material with psychoanalytic insight, correlating the internal as well as the external life of each writer with his work, and in section III of the book comparing Swift and Carroll as personalities and as authors. The overtly aggressive Swift and the overtly gentle and effeminate, oral and skoptophilic Carroll—the savage satirist and the teller of harmless nonsense tales (which are yet full of veiled aggression)—seem at first strange associates, but Dr Greenacre's study of each reveals more of both, and indeed of literature and humankind.

Section IV is entitled 'Notes on Nonsense' and is worthy of consideration as an additional chapter to Freud's 'Wit and Its Relation to the Unconscious'. The relation of nonsense to the primary process, and to 'that time, generally between fifteen and thirty months, when the language of bodily activity and response is being supplanted by verbal language', is most illuminatingly treated.

The book is well written, with few trifling errors ('Lady Dorothy' for 'Lady Temple'), well produced and bound in the American style, and with eight illustrations some of which are unfamiliar and one even surprising. It makes a contribution of value to literary biography and criticism as well as to psychoanalytic theory, and should be of interest and note to readers beyond medico-psychological circles.

J. D. UYTMAN

beaten track of symbol comparison in art and symptom, and to explore, with the psychoanalytic instrument, the process of artistic creation itself. Michelangelo, with plastic, graphic and poetic productions to be considered, and with his gigantic stature as sculptor and painter, remains now as fascinating a subject for psychoanalytic study, biographical and ergographical, as he was for Freud.

The present book studies, in this particular and outstanding instance, the theme which the author has stated with more general application in his contribution to *New Directions in Psycho-analysis*. 'The state of mourning in which Michelangelo spent his life is akin to death where death is conceived as the irremediable loss of what is good. The Medici chapel is a burial chapel dedicated to the Resurrection: it expresses the act of mourning and also...the re-instatement, the resurrection of the lost good person within the mourner's psyche' and again '...the marble Virgin...that separate, all-sufficient object, the mother, the original object once long ago attacked, destroyed and despaired of in the outside world'. In line with *New Directions* Mr Stokes quotes a revealing sentence in a letter of Michelangelo's: 'My brother is painted on my memory but you, father, are sculpted alive in the middle of my heart.' Yet despite painstaking analysis of biography, letters, sculptures, paintings and verse, despite the pre-eminence of Michelangelo as an analysand, and despite the reproduction of no less than twenty-four excellent photographs of sculptures, drawings and paintings, the book fails to sustain the hopeful interest of the reader. It is not, in fact, certain which reader the author considers himself to be addressing, for the book uses two vocabularies simultaneously—that of art criticism and that of object-relations psychoanalysis—with both of which not all likely readers are familiar. The addition at times of mystic-poetic purple passages reminding one of translated Jung does not aid lucidity. The reader who wishes at all costs to follow the argument then has the further inconvenience of referring repeatedly from the text back and forward to plates and to chapter notes, the latter indicated throughout by minute and eye-eluding reference figures.

This book is worth reading—and re-reading—if one is prepared to study it; it may then provide enjoyment, but not relaxation.

J. D. UYTMAN

Michelangelo. A Study in the Nature of Art.
By ADRIAN STOKES. (Pp. 154. 25s.) London:
Tavistock Publications, Ltd. 1955.

The visual arts have had increasing interest for medical psychologists in recent years with the exploration of relations between psychosis and art. This book returns to the subject of one of the earliest psychoanalytic works in this field, Freud's pioneering paper on Michelangelo's enigmatic Moses. The author seeks to leave the now well-

THE EFFECTS OF SUDDEN WEANING ON ZULU CHILDREN*

BY RONALD C. ALBINO AND V. J. THOMPSON†

It has been said that '... however long a child is fed at his mother's breast he will always be left with the conviction after he is weaned that his feeding was too short and too little' (Freud, 1940). Similar assertions that weaning is a major frustration are found elsewhere in psychoanalytic and psychiatric literature. Spock & Huschka (1938) believe weaning to be life's first major frustrating experience, whilst according to Schmideberg (1933) weaning from the breast may be equated with leaving the mother entirely. Bergler (1934) states that the child never resigns himself to the loss of the breast, and Klein (1940) believes that the infant reacts to weaning with a depression approaching melancholia in intensity. All these workers base their conclusions on indirect evidence obtained from the study either of adult phantasy or children's play.

Other workers have attempted to confirm the effects of weaning in indirect ways by testing the predicted correlation between various weaning practices and specific types of adult personality. The anthropological work of Erikson (1945), Mead (1935), Ritchie (1943) and Money-Kyrle (1939) exemplify this type of investigation. Other workers have attempted to show by more rigorous methods than those used by the anthropologists similar correlations between weaning practices and adult personality traits. Goldman (1948*a, b*), Childers & Hamil (1932), Maslow & Smilagyi (1946) and Hill (1937) found a positive relationship between the duration of breast feeding and later personality characteristics. On the other hand, Thurston

& Musson (1951) and Peterson & Spano (1946), in less rigorous studies, found no such relationship.

As the studies quoted start from the initial assumption that weaning does affect the organism and are directed to testing this assumption, it is surprising that so few workers have adopted the more direct method of investigating the immediate effects of weaning. The literature on this question is more or less restricted to reports of individual cases and lacks systematic studies. For example, Bjerre (1924) reports a child weaned at six months who cried, kicked, refused the bottle and had to be forcibly fed to prevent starvation. Grulee (1924) states that often at the time of weaning he encountered severe anorexia nervosa. Ribble (1944) studied the overt behaviour of 600 infants during the nursing and weaning periods, but was less concerned with the specific effects of weaning than with the deprivation of maternal care in general and with the value of suckling for the young infant.

The study of weaning presented in this paper was prompted by the lack of information on what is, in psychoanalytic theory and in the opinion of many workers, an important procedure in the treatment of the infant. It is a preliminary survey of the material and is not quantitative except in the crudest sense. It should be noted, however, that we studied the effect of a standardized form of sudden weaning at a given age on a fairly homogeneous group of children, and in these respects our findings have greater value than isolated observations of various children weaned at various ages by different methods. The study is more or less restricted to behavioural changes and a minimum of interpretation has been made.

* This study was supported by a grant from the National Council for Social Research, South Africa.

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THE SAMPLE

(1) *Experimental group*

The cases were drawn from the Polela reserve in the Bulwer district of Natal. The people in this area form a fairly homogeneous group; they belong to the same language group, are mostly Christian and live under similar geographic, climatic and economic conditions. A Health Centre serves the area, and it was on the information of the nurses in this centre responsible for the care of mothers and children that the first cases were approached. The mothers of these first cases told us of other children about to be weaned in the neighbourhood, and some mothers, hearing of the project, presented themselves. This method of selection (the only possible one) resulted in our sample being drawn from two main areas with a few instances from more

remote districts. However, though the sample is in no sense random, it has the advantage of being homogeneous in the sense that families living in a neighbourhood are more likely to be similar than those living in different neighbourhoods.

There were sixteen children in the sample, two of these being twins (10*a* and 10*b* in Table 1*a*). The sample is analysed in Table 1. The families from which the children came were virtually fatherless; the father was either away from home for long periods, or the child was illegitimate. However, this did not mean that the mother and child lived alone. In all but three homes at least one other adult was permanently present, and in all but one there were siblings (Table 2).

The sample is small largely because of the difficulties of the terrain. The area is mountainous, poorly served by roads and most

Table 1. *Composition of sample*

(a) Experimental group			(b) Control group			
Child	Age at weaning (months)	Sex	Child	Age first tested	Age at weaning (months)	Sex
1	22	M.	1A	34	13	M.
2	15	M.	2A	25	12	F.
3	15	F.	3A	16	12	M.
4	15	M.	4A	29	Unknown	M.
5	16	M.	5A	25	Unknown	M.
6	18	F.	6A	13	Unweaned	M.
7	19	M.	7A	16	15	F.
8	19	F.	8A	18	8	F.
9	17	M.	9A	24	12	F.
10 <i>a</i>	21	M.	10A	36	20	F.
10 <i>b</i>	21	F.				
11	22	F.				
12	18	F.				
13	21	F.				
14	24	M.				
15	21	M.				

Experimental group:

Number of cases: 16 (9 males, 7 females)

Mean age: 18.9 months

Age range of females: 15-24 months

Age range of males: 15-24 months

(Cases 10*a* and 10*b* were twins)

Control group:

Number of cases: 10 (5 males, 5 females)

Mean age: 23.6 months

Age range of females: 16-36 months

Age range of males: 13-34 months

homes were a considerable distance from the health centre. Because of these difficulties, as much—or perhaps more—time was spent in reaching the homes as in interviewing the parents.

case, is very small and may not be nutritionally significant. A physician (Dr J. Cassel) skilled in such examinations gave a nutritional examination before weaning and twice after weaning.

Table 2. *Family constitution (experimental group)*

Child	Grand-father	Father	Grand-mother	Parents' siblings		Siblings		Other children
				F.	M.	F.	M.	
1	—	—	1	—	—	7	3	1
2	—	—	—	—	—	1	1	—
3	—	—	—	1	—	—	—	—
4	1	—	1	2	—	1	—	—
5	—	—	—	—	—	2	1	—
6	—	—	1	—	—	2	1	1
7	—	—	1	2	—	—	—	5
8	1	—	1	—	—	1	1	1
10a)	(twins	—	—	—	—	—	1	1
10b)								
11	—	—	—	—	—	1	7	—
12	1	—	—	2	—	1	2	6
13	1	1	—	—	—	1	1	—
14	1	1	—	—	1	1	1	—
15	1	—	2	3	—	1	1	2

Note: (i) Each family lives in a group of huts having ample space for all its members. (ii) The mother was present in each case.

(2) Controls

As a comparison of post-weaning and pre-weaning behaviour was the subject of the study the group (in all but one respect) acted as its own control. The further necessary control was one for maturation. This could only have been achieved with a group of unweaned children equivalent in all respects to the sample, a demand impossible to satisfy within the community studied in which all children are weaned at much the same age.

Because of the extensive incidence in Africa of malnutrition of a kind which may affect behaviour (Brock & Autret, 1952), each child was given a more than adequate daily ration of dried full-cream milk for three weeks, beginning a week before weaning. This ration also acted as a replacement for the loss of breast milk at weaning; a loss which, in any

A control group (Table 1b) of children was used for the developmental part of the study. This group, composed of urban Africans, was equivalent to the experimental group only in age and sex. However, as the apparently culture-free items of the Gesell scale were used, it was assumed that the cultural differences between the experimental and control groups could be ignored.

(3) The nutritional status of the children

In Polela, as in most of Africa, malnutrition is commonly observed. The most widespread syndrome is *kwashiorkor* (Brock & Autret, 1952). As this condition is reported to be accompanied by marked mental changes, it was essential for the nutrition of the sample to be controlled.

Each child was given a full nutritional examination before he was weaned and twice

after weaning. No member of the sample was found to be markedly malnourished, and neither did the level of nutrition appear to change from the first to the last examination (which were usually separated by a period of three weeks). Nevertheless, all the children displayed some of the stigmata of mild malnutrition.

The mental changes to be expected as a result of incipient kwashiorkor are not discussed in the literature, but Clark (1951) has described the symptoms characteristic of the established disease. He asserts these to be more constant, characteristic and important than the skin changes, and it may, therefore, be the case that such symptoms are to be observed early in the condition. 'A child', writes Clark, 'with kwashiorkor is dull, apathetic and miserable. It rarely screams or cries: a low miserable whimper is the only sign of its wretchedness. We are all familiar with the African child, who, terrified by the European doctor, fights and resists to the limit of its strength. Not so the kwashiorkor child; it will rarely, if ever, resist examination in the least degree, and will never fight or scream—its apathy being too great. Children with kwashiorkor are so dull and apathetic that if put to sit in one place they will remain sitting there until lifted up again. They never, as do so many other children, go wandering off down the road to investigate matters for themselves. If one can get a smile out of a child with kwashiorkor, one assumes it is well on the way to being cured.'

Only one child (no. 1) showed any symptoms of this kind. The remainder were active and curious during all the time we observed them. Even those children who showed an apathetic immediate response to weaning were, most of the time, lively, their apathy only appearing in particular situations. The one exception (no. 1) who was markedly apathetic before weaning did not show any more marked signs of malnutrition than the others. He did, however, come from a family with an epileptic history, and it was noticed that he had frequent spells of apathy

and immobility accompanied by a fixed gaze which pointed to a diagnosis of petit mal rather than kwashiorkor.

We are reasonably sure that no marked malnutrition existed in the sample and, what is more important, that no mental symptoms attributable to kwashiorkor were to be seen.

The effects to be expected from recovery from malnutrition

The observed results of malnutrition are apathy, and it would be expected that recovery from the disorder would be accompanied by a greater liveliness and activity. All the children in our sample showed an increasing activity, spontaneity and aggressiveness following weaning. If the children were originally malnourished, then our findings could be explained as being due merely to improved nutrition following the administration of dried milk.

It is unlikely that this is entirely the case. The changes occurred suddenly, immediately following weaning, whereas, had they been due to improved nutrition, they would have occurred gradually. Also, no child appeared to have mental symptoms of kwashiorkor before weaning. It is therefore probable that the changes observed in this study were the result of weaning, but it would be unwise to assume that some of the changes of behaviour may not have been partly the result of better nutrition.

The effect of loss of breast milk

Some of the effects of weaning, and especially those occurring within the first few days, may have been the result of nutritional disturbance following on the loss of breast milk. It is unlikely that this is the case, because the flow of milk is very poor by the time the child is weaned and it is also of low nutritive value (information from Dr Cassel). The child has also been on a diet of solid food for some months prior to weaning (see Table 3) and the breast is more of a comforter and a supplement to the diet than a major part. Lastly, the

ration of dried milk would have been sufficient to replace the breast milk lost at weaning. It is, therefore, probable that the weaning is more a psychological than a nutritional deprivation.

Table 3. *Method of feeding infants at Polela in the first two years* (Cassel, 1950)

Age (months)	No. of infants	% breast only	% breast	
			plus other food	% no breast- feeding
0	118	90.6	8.4	0.84
1	128	80.4	18.7	0.78
2	134	76.8	21.6	1.4
3	123	51.2	47.1	1.6
4	114	27.7	61.0	0.87
5	120	12.5	86.6	0.83
6	106	7.5	94.5	0.88
7	96	5.2	94.8	0.0
8	107	0.0	99.1	0.9
9	86	1.2	96.5	2.3
10	81	0.0	96.3	3.7
11	84	0.0	97.6	2.4
12	81	0.0	96.3	3.7
13	80	0.0	92.5	7.5
14	68	0.0	86.8	13.2
15	54	0.0	85.2	14.8
16	58	0.0	77.6	22.4
17	49	0.0	77.6	22.4
18	49	0.0	65.3	34.7
19	42	0.0	61.9	38.1
20	38	0.0	34.2	65.8
21	31	0.0	22.6	77.4
22	20	0.0	25.0	75.0
23	13	0.0	23.1	76.9

METHODS

(1) *The interview*

The greater part of the information was obtained by means of unstructured interviews with the mothers in their own homes. Care was taken to establish good rapport with the families in the first few interviews, which was not difficult as the study was conducted from a health centre with great prestige in the dis-

trict. Frequent visits of workers from the centre to the homes had removed all suspicion of strangers. The success of the rapport is indicated by the number of mothers who requested interviews, by the fact that mothers were very disappointed when a visit had to be cancelled, and by the amount of intimate family data which occurs in the records. These interviews began approximately two weeks before weaning and continued for a further seven weeks.

At the first interview the mother was told the purpose of the study and any questions she asked were answered as fully as possible. From this point the interviews were undirected but, because the parent was aware that her child was being studied, most conversation was about that child. In later interviews a number of specific questions were asked, and these tended to become more frequent as knowledge of the child's behaviour accumulated. The aim of the interview was first to obtain a broad picture of the child's behaviour and later to concentrate on those aspects which appeared to have been markedly affected as a result of weaning.

The interviews were conducted through an interpreter who was a nurse and had been born in the district. Though the investigator could not speak Zulu she could understand it, and was well able to estimate how far the interpreter distorted questions and the replies to them. In both instances distortion appeared minimal.

Apart from simple distortion there are two great dangers in the use of an interpreter. Good rapport may not be established, and subtle forms of behaviour may pass unobserved because the linguistic forms of a language which refer to behaviour peculiar to the society, or having a special meaning for its members, cannot be translated easily into another language, or even comprehended by a foreigner. There was no doubt that rapport in all our cases were excellent. Subtle behaviour may have passed unobserved, but that must merely be counted a loss. The behaviour we did observe was gross, would be describable

in any language and was of a kind found universally.*

The interviews were conducted in the open in front of the home or, in wet weather, inside the hut. Each interview was recorded in English in longhand as nearly verbatim as possible, and the record typed within at most two days from the interview, but usually on the same night. The interviews were about an hour long. Near to, and including the day of weaning they would last up to three hours, and might be as short as fifteen minutes at the end of the period of investigation.

(2) *Observations of the child*

During lulls in conversation the child's behaviour was noted. This crude form of time sampling provided a fairly adequate description of the child's predominant behavioural characteristics.

(3) *Photographs*

Photographs were taken at frequent intervals. This did not in any way disturb the child or its family, the members of the latter appearing to be indifferent to the camera at all times.

(4) *The protocols*

The final protocol on each child consists of a written verbatim record of the interview interspersed with descriptions of the child's behaviour and photographs.

During the interview the investigator would often feel, without adequate evidence, that some remark or behaviour had a special significance and meaning. Such interpretations were recorded, but were distinguished from records of fact. The data are thus a combination of observations of the child, reports on the child given by the parent,

material on the psychological history of the family and the investigator's impressions.

(5) *Treatment of the protocol*

The protocols are all of considerable length and contain unordered information on many topics. To reduce and order this data it was tabulated thus:

(i) A topic was chosen for tabulation. The choice was determined by our judgement of what had seemed important in the behaviour of the weaned children.

(ii) Each protocol was carefully studied for statements relating to behaviour of the kind chosen for investigation, and all such statements were marked.

(iii) These statements were entered verbatim in a table in which a column was devoted to each day of observation and a row to each child.

(iv) This first table was further reduced by abstracting the entries into a smaller similar table. This latter table is the one on which the findings are based.

(6) *The status of the data*

The entries in any table consist of material of various kinds. In some instances they are reports made by the mother on behaviour, in others they consist of direct observation.

Which type of data predominates in the tables covering one topic is normally evident from the discussion of that topic. However, it must be remarked that all the data are very variable in their reliability, and for this reason we do not claim more than preliminary validity for our findings. Every topic requires further detailed and rigorous investigation before its exact characteristics can be said to have been established.

(7) *Developmental investigation*

Both the experimental and the control group (A) were tested one day before, one day after and one week after weaning on a modified Gesell Developmental Schedule. The following tests were used: nos. 8-12, 18, 19-

* It should be remarked that we had no anthropological aims and were not concerned to come to conclusions about Zulu society or Zulu children; we merely took the fact of sudden weaning as a convenient experimental situation and described as fully as possible what we observed and what the mothers told us of their children.

24, 26-30, 32, 33, 38-40, 42, 43, 46, 53, 54. (Gesell & Amatruda, 1941). The instructions were given to the child in its own language, and testing began only when good rapport had been established.

RESULTS

A. THE WEANING

(1) *The pre-weaning suckling methods*

The infants in the community studied are allowed almost unlimited access to the breast before weaning, and mothers use suckling as a method of comforting and reassuring a disturbed child. The breast is usually given to the child on demand. He may ask for it, approach the mother and open her dress, or may sit fingering the covered breast. In the latter case the mother almost immediately offers the breast to the child. She rarely allows him to whimper for any time. The child is suckled as soon as he wakes, when the mother returns after an absence, when he is crying after a fight, when he is hurt and on any other occasion when he may need comforting. Once the breast has been given to a child he usually continues sucking until he is satisfied. Only rarely does a mother disturb a child while he is at the breast.

(2) *The method of weaning*

No detailed description of weaning is to be found in the literature. Bryant (1949), Krige (1950) and Hellmann (1948) all agree that the nursing period is lengthy. Krige puts the age of weaning at two to three years, and Bryant remarks that nursing may continue into the fourth year. Hellmann mentions that urban mothers may limit nursing to the first year. Hellmann (1948), Bryant (1949) and Doke & Vilakazi (1948) all report the use of bitter aloes (*umhlaba*) to make the breast repugnant to the child. Krige (1950) does not mention the aloes but describes a bitter medicine (called by the mothers in our sample *imFingo* medicine) mixed with 'a species of fly' which is tied round the child's neck and smeared on the breast.

Table 1a shows the mean age of weaning

in our sample to be 18.9 months; this is nearer to Hellmann's urban group than to the rural groups reported by Krige and others (see also Table 3). It is, perhaps, the penetration of urban influences into an area as remote as Polela that is responsible for this lowering of the age of weaning. Children over three are rarely found at the breast in Polela, unless they have been suckled by a grandmother after being weaned for some extraordinary reason at an early age from the mother.

(3) *Stated reasons for weaning*

It is traditional for the paternal grandmother to decide on the time and mode of weaning. This is still true in the case of the firstborn, but less so for later siblings. In the latter case the grandmother is usually consulted on the advisability of weaning, whilst the mother fixes the actual date. Three of our cases were firstborn and the weaning date was fixed by the grandmother.

Each family told us that the child was being weaned because 'he was old enough'. On inquiry this was found to mean that it could walk, could talk well enough to be understood when demanding food, that it could obtain its own food from the pot if hungry and could compete successfully with siblings.

(4) *The weaning procedure*

In every case the breast was smeared with the bitter juice of the aloe in the presence of the child, and it was offered to him at intervals during the remainder of the day. In all but one case a charm was tied round the child's neck to encourage the child to forget the breast and to overcome the troublesome effects of weaning. The contents of the charm and the associated magical practices (which were observed in some homes) were variable. In fourteen cases the *imFingo* medicine was used, in twelve a fly, in ten the child's saliva, in five the mother's breast milk, in one a cockroach and in one the child's tears. The charm always contained two or more of these substances. It seems as if some are intended to work by

sympathetic magic; the large appetite of the cockroach would ensure a healthy appetite for the child, and the inability of a fly to cry would prevent the child from crying. The breast milk, *imFingo* and tears were said to make the child forget the breast. It is interesting that three homes rejected the fly as a useful charm on the grounds that it remained awake at night and might encourage the child to do the same. In two homes a 'weaning specialist' who was not a diviner was called in. She performed an elaborate ritual which need not be detailed here.

There was evidence from one home that the weaning procedure might have originally been one in which the child was encouraged by magic to give up the breast, rather than being forced to do so. In this home we were told that a piece of bread and a fly would be placed before the child who would be asked to spit on them. If this procedure was successful the child, on being called to the breast, would vomit and would not want the breast again. Bryant (1949) implies that this use of the charm is the normal procedure. That is, it is used to induce weaning rather than to counteract its effects, and the smearing of aloe on the breast is a secondary method only necessary in the case of failure. If this was the traditional technique, it might imply that the child is, at about three to four years, ready to be weaned by mere persuasion.

In all homes weaning was considered a serious event. The approximate date is fixed some months ahead and the mother will spend the whole day of weaning at home, even during the very busy reaping season. In every case a 'substitute' for the breast was provided, usually a chicken or some delicacy such as meat, bread or sweets.

When directly questioned mothers deny weaning has any unpleasant effect on the child; an attitude contradicting strangely with their obvious anxiety and the magical precautions they observe to prevent presumed ill effects.

B. THE EFFECTS OF WEANING

(1) *Reaction to application of aloe to the breast*

All the children were disturbed by the application of the aloe to the breast. None cried markedly for any length of time nor did they speak, all of them appearing more bewildered or afraid than excited. Two forms of disturbance were observed: an apathetic one in which the child remained quietly near to its mother with an expression of bewilderment, and an escape reaction in which the child ran away in apparent fear and remained at some distance from its mother.

(2) *Behaviour during the first few hours after weaning*

Only one child accepted the breast more than once after weaning, and this was probably because very little aloe had been used. Of the remaining cases nine accepted the breast once but refused it subsequently, and the other six refused to take the breast at any time during the interview, even though they had no experience of the bitter taste of the aloe. All but two children (both of whom refused to approach the mother when her breasts were exposed) manipulated the breasts, either touching them in a tentative way, exploring them or holding them. Two children applied more aloe to the breast and one poked the breast with the spine of an aloe as if to injure it.

During the first two hours after weaning children were observed to become negativistic, aggressive and fretful, and they might begin to suck their fingers or other objects more frequently than they had appeared to immediately before weaning. Some children performed stereotyped activities repetitively, and a few ignored their mothers, acting as if she did not exist. Tables 4 and 5 list these early reactions to weaning.

Table 4. *First post-weaning reactions*

Reaction	Case no.	f
Apathetic (<i>n</i> =5)	Mild 9, 10 <i>b</i> , 13	3
	Severe 1, 6	2
Aggressive (<i>n</i> =8)	Mild 10 <i>a</i> , 5	2
	Severe 2, 3, 4, 7, 12, 14	6
Total		13

the changes which were observed, and there is no alternative but to present full descriptions of each child. These are given in the Appendix.

(b) *Relations with mother*

Of all relationships that of the child with its mother is most disturbed. In ten children it is possible to isolate three distinct stages in which

Table 5. *Frequency of early reactions to weaning*

(+ = present; 0 = absent)

Reaction	Child															f
	1	2	3	4	5	6	7	8	9	10 <i>a</i>	10 <i>b</i>	11	12	13	14	15
Negativistic behaviour (refusal to respond to mother)	+	+	+	+	+	+	+	+	+	+	+	+	0	+	+	15
Aggressive (attacks on mother)	0	+	0	0	+	+	+	+	+	+	+	0	0	0	+	10
Oral behaviour (sucking of objects)	0	+	0	0	0	+	0	+	0	0	0	+	+	0	0	5
Repetitive behaviour (repeated performance of stereotyped movements)	0	+	+	+	+	0	+	0	0	+	+	0	+	0	0	8
Fretfulness (whimpering and crying)	+	+	+	+	+	0	+	+	0	+	+	+	0	+	0	12
Apathetic (<i>A</i>) or escape reactions (<i>E</i>)	<i>E</i>	<i>E</i>	<i>A</i>	<i>E</i>	<i>E</i>	<i>A</i>	<i>E</i>	<i>E</i>	<i>E</i>	<i>E</i>	<i>E</i>	<i>A</i>	<i>A</i>	<i>E</i>	<i>E</i>	<i>A</i> $\begin{cases} A:5 \\ E:11 \end{cases}$

(3) *Behaviour changes subsequent to the day of weaning*

The observed changes can be classified into those of affective behaviour, aggressive behaviour, social and developmental. The child also begins to perform acts which, whilst not easily falling into any of these categories, are regarded by the parents with disapproval. These acts have been termed 'naughty'.

(4) *Disturbances of social behaviour*(a) *Relations with other people*

Every child showed a change in his relationship to others in the home. However, as the family constellation differs from home to home, it is not possible easily to systematize

the relationship to the mother took a specific form. The length of the stages and their order, however, varied from case to case.

(i) A period of alternate attacking and ignoring mother, the attacks occurring mainly at night and usually being directed towards obtaining the breast. In this stage the previous close attachment to the mother appears to have been destroyed—the child rarely sitting with his mother as he did before weaning and spending little time with her. In most cases he becomes attached to another person in the household; a sibling, nursemaid or grandmother. This stage may continue for a few days or up to as long as three weeks.

(ii) A stage in which the child makes positive attempts to gain his mother's care and

attention. He becomes irritable and fretful and is described as behaving as if he were ill. He constantly demands to be nursed on his mother's back and will not allow her out of his sight. This behaviour may be very marked (no. 14) or intermittent, alternating with features of the first stage. The duration of this stage may be from a day up to one week.

(iii) A period of increasing independence of the mother. The child begins to spend more time with others and rarely takes notice of his mother at all. He shows no anger towards her as he did in the first stage and appears to be less disturbed than he was in that stage. This independence may begin suddenly (nos. 4, 5, 12, 15) or gradually (nos. 6, 10a, 10b, 11, 13, 14). During this period the attachment he made in the first stage to another person may continue, or he may renounce it and become fully independent.

The following four cases did not demonstrate this pattern:

Cases 1 and 2. Both children showed a gradually decreasing attachment to mother which progressed until the end of the period of observation.

Case 7. In the first week following weaning this child combined the behaviour of stages (i) and (ii) above, appearing very attached to his mother but frequently attacking her and demanding the breast. By the fifth day the attachment and aggression had lessened. From then until the end of the period of observation the child became increasingly independent of his mother.

Case 8. For the first five weeks following weaning this child gradually lost her attachment to her mother and became closely attached to a sibling. In the sixth week, by which time the child appeared independent, she suddenly began to make attempts to gain her mother's attention; attempts which the mother described as 'trying to be good'. This behaviour was still present in the seventh week.

Only in three cases (nos. 8, 12, 15) was a close relationship to the mother observed at the end of the seventh week.

(c) *Changes in behaviour towards others in the household*

Besides the disturbed relationship to its mother, the child also shows marked changes in its relationship to others in the household. In all but two cases (nos. 2 and 7) the pre-weaning relationship of the child to its mother is replaced by an attachment to some other member of the family such as a nurse or a sibling. However, during the period of demanding behaviour (stage (ii)) described above, this attachment becomes less intense and may be renounced altogether, but is ultimately restored again. By the seventh week only four cases (nos. 2, 7, 10b, 11) remained unattached.

The increasing aggressiveness of the child also affects its relationships with other people. At first it is the mother who suffers most, but later the whole environment is attacked. In eleven cases (nos. 2, 4, 6, 8, 9, 10a, 11, 12, 13, 14, 15) aggression was also specifically directed at one sibling with whom the child refused to play. These aggressive attacks were provoked whenever there was a positive relation between this sibling and the mother.

(5) *Increased maturity of behaviour*

Most children in the sample suddenly developed forms of behaviour normally expected only of older children, such as helping in the household tasks, an increased facility in speech and a greater independence of the support of adults. Some mothers referred to this by asserting that the child had 'grown up' even though not all could state exactly what they meant by this phrase.

Twelve children (nos. 1, 2, 3, 4, 6, 7, 8, 10b, 12, 13, 14, 15) began to help in the home by sweeping the floor, washing dishes, fetching water and wood and carrying out instructions more promptly and effectively than previously. Eleven children (nos. 1, 3, 4, 6, 7, 8, 10a, 10b, 12, 14, 15) began to imitate the behaviour of other people in the home. Seven (nos. 6, 7, 8, 9, 10a, 12, 14) began to use new words and to talk more distinctly. Their mothers described them

as trying 'to talk and to name everything'. In four cases this increased facility in speech was reported as early as the fifth day after weaning, in the remainder it was reported after the thirteenth day. The latter cases may obviously have been the result of maturation, but it is difficult to escape the impression that the former cases were a direct result of weaning.

Five children left home more frequently than before going to other homes, to the river, or to herd goats and cattle, and there did not appear to be any social compulsion on the child to do these things at this particular age.

Four children suddenly began to show concern for the investigator following weaning. They offered her mats to sit on and brought her food and drinking water, all forms of behaviour which were not observed before weaning.

(6) *Changes in affective behaviour*

In the Appendix a summary of each child's affective behaviour during the period of observation is presented. It is convenient to consider separately the changes occurring in the first and subsequent weeks.

During the first week three main kinds of affective behaviour which could be attributed to weaning were observed: apathy, fretfulness or combinations of the two. The apathetic reaction was found in seven children, fretfulness in four, and five cases exhibited a combination of the two reactions.

The apathetic children became quieter than normal, sat apart from the others in the home and were reported by their mothers to be 'unhappy'. The reaction persisted for from three to six days. The fretful cases constantly cried or whimpered and demanded their mother's attention. The remaining children were alternately fretful and quiet.

During the remainder of the seven-week period of observation these changes in mood gradually disappeared in twelve children. The child became apparently normal so far as his mood was concerned, both as could be judged from his appearance and in the opinion of his

mother. The four remaining cases continued to be described as fretful, cheeky and bad tempered up until the end of the period of observation.

In addition to these changes of mood, it was also noticed that six children (nos. 8, 11, 12, 13, 14, 15) became very noisy after the first week. They talked loudly, shouted and often sang during play. In only two cases (nos. 11, 15) did this noisiness persist until the end of the investigation.

(7) *Aggressive behaviour*

Every child showed an increase in aggressive behaviour following weaning, the most usual pattern taking the form of a gradual increase in extent and intensity which continued in some cases up to the end of the investigation.

In eleven cases (nos. 1, 2, 5, 6, 9, 10a, 10b, 12, 13, 14, 15) aggression began with attacks on the mother during the first night after weaning. In seven of these children (nos. 2, 6, 9, 10b, 13, 14, 15) these attacks took the form of incessant fighting in which they screamed, bit, scratched and kicked their mothers and demanded the breast. These attacks were sufficient to prevent the mother from sleeping.

Five children did not attack their mothers during the first night after weaning. Two of these slept with the grandmother, two were described as 'quiet and unhappy', sitting quietly during the evening and sleeping all night. One child woke and cried a great deal during the night but did not attack his mother.

After the first night the child's aggression gradually extends to the whole family, and in one group (Table 6a) continued until the end of the seven-week period of study, but in another (Table 6b) it disappeared before that time. It was possible to rate the aggressiveness of each child; ratings which, however, may be criticized for several reasons. First are the general criticisms of ratings scales that have been made in the past, and, if anything, our scale is most likely to suffer from these defects. Secondly, the pre-weaning rating was made on the findings of a week's discussion with the

mother together with observations of the child, whereas the post-weaning ratings were the result of assessing over short periods a rapidly changing behaviour. However, the ratings were done from the protocols and so are not subject to the criticism that they are unverifiable. Also by virtue of their being based upon documents, a carefully defined set of criteria could be established for each rank.

Table 6. *Distribution according to post-weaning rating for aggression*

(a) Cases in which aggression persisted until the end of the seventh post-weaning week. ($N=9$)

Case no.	Pre-weaning rating	Rating at end of seventh post-weaning week
1	2	4+
2	1	4
4	3	4+
6	2	4
10a	3	3+
10b	2	3
11	2	4
12	1	4+
13	1	3

(b) Cases in which marked aggressiveness as a result of weaning had ceased or diminished by the end of the seventh post-weaning week. ($N=5$)

Case no.	Post-weaning rating	Rating at end of seventh post-weaning week
7	1	1
8	4	1
9	2	(Child sick)
14	4	3
15	2	2

Table 7. *Distribution of cases according to pre-weaning rating for aggression*

Rank	Case no.	Total no.
1	2, 7, 12, 13	4
2	1, 3, 5, 6, 9, 10b, 11, 15	8
3	4, 10a	2
4	8, 14	2
		16

Table 7 displays the pre-weaning distribution of the cases in each rating. (In the

Appendix are abstracts of each child's aggressive behaviour. Children 9 and 14 became ill during the investigation, a fact that must be taken into account in considering the findings on them.)

The rating criteria used for this purpose are as follows:

Score 1. A friendly child who rarely fights with mother or with others in the home.

Score 2. A child who fights occasionally but does not show pleasure in so doing. Such a child will quarrel when teased or provoked during play, or when it is refused an object it desires.

Score 3. A child with aggression as a marked feature of its behaviour. Such a child will initiate fights that occur during play, is described as 'cheeky' (*ulaka*) because it likes to have its own way, and becomes very angry when frustrated.

Score 4. A predominantly aggressive child who shows pleasure in fighting, constantly attacks others, and throws sticks and stones.

Score 4+. A child markedly more aggressive than 4 above.

(8) *Incidence of behaviour disapproved of by mother*

(a) *Use of the term 'naughty'*

Before weaning the mothers spoke of certain behaviour as being 'naughty' in the sense that it was troublesome to them. After weaning, similar behaviour was considered naughty, but new troublesome behaviour, for example, fighting and fretfulness, was included in the same category. It is convenient to discuss 'naughty' behaviour separately from such new behaviour however. The main reasons for doing so are that 'naughty' behaviour of the kind present before weaning has a special meaning for the mothers in that it is not approved nor regarded as a pathological matter, and because it is not included in any of the other categories of behaviour discussed.

Behaviour which the mothers described as 'naughty' can best be discussed in terms of specific acts performed by the children. These may be grouped as follows:

Play with water. Play with water was the first example of naughty behaviour to be quoted by every mother. (It is not difficult to understand

why water is of such importance in the home. Rivers and streams are very often far away and the fetching and carrying of water is a difficult daily task.) This includes: playing with and spilling water, and deliberately pouring it on the floor; dirtying the water by dropping dirty utensils, soil, food and other impurities into the water bucket.

Play with fire. This includes: play with ashes; extinguishing the fire (by pouring water on it, or by removing the firewood); play with matches (upsetting the box, striking matches, or throwing them on the fire); throwing clothing, cutlery, utensils and other valuables on to the fire.

Messing. This includes: deliberate spilling of food and water, overturning dishes containing food or freshly ground mealie-meal; mixing sand and water inside the hut, as well as any other dirty play with soil carried on inside (though not outside); throwing soil on food or dirtying food in other ways.

(b) *Methods of scoring naughty behaviour*

The sixteen cases in the sample fell naturally into five grades:

- (1) Children who seldom showed naughty behaviour and who rarely or never needed to be punished.
- (2) Children who indulged in naughty behaviour and had to be reprovved but who were not constantly troublesome, and who listened when reprovved.
- (3) Children who performed many naughty acts and often had to be punished, but who also listened when reprovved.
- (4) Children who had to be watched constantly and prevented from naughty behaviour. These children did not listen when reprovved.
- (5) Children who were excessively naughty. When prevented from completing one naughty act they proceeded to be troublesome in some other way. Mothers found these children extremely difficult; punishment had no effect and the children became aggressive when reprovved. (This behaviour was only observed after weaning.)

(c) *Naughty behaviour in the sample before weaning*

The rating of cases according to naughty behaviour before weaning showed ten cases falling into grades 1 and 2, the remaining six cases being divided between grades 3 and 4. The sample is therefore composed mainly of children who were mildly naughty before weaning.

(d) *Changes in naughty behaviour after weaning*

The changes in naughty behaviour can be discussed conveniently in two parts, viz., (i) the day on which the change in naughty behaviour was observed; and (ii) the development of naughty behaviour during the seven-week post-weaning period.

(i) *The day on which the change was observed.* In every case an increase in naughty behaviour was observed after weaning. This increase does not appear immediately after weaning, but usually on about the fourth or fifth day after (Table 8). By the sixth day twelve cases showed an increase; only two cases showed an increase during the third week, and only one case during the sixth week after weaning.

In three cases (nos. 2, 4, 14) the children were at some stage of the seven-week post-weaning period described as 'too unhappy to be naughty'. This statement may provide an explanation of the relatively late appearance of the increase in naughty behaviour.

Table 8. *The day on which the increase in naughty behaviour occurred following weaning*

Day after weaning	Case no.	
1	—	
2	14, 15	2
3	1, 4, 13	3
4	8, 9, 10b, 12	4
5	3, 6	2
6	2	1
7	—	
7+	10a, 7, 11	3
	Case no. 5 abandoned	1
	Total	16

(ii) *Development of the changes in naughty behaviour during seven-week post-weaning period.* The Appendix gives details of the development of naughty behaviour in each child during the seven-week observational period.

In eleven cases (nos. 1, 2, 3, 4, 6, 7, 8, 10*b*, 12, 14, 15) naughty behaviour increases until it becomes excessive, but in only two cases does this extreme behaviour persist until the end of seven weeks after weaning (4, 10*b*). In the remaining five cases, the excessively naughty behaviour is followed by an improvement, although in all but two cases (nos. 7, 14) the child remains more naughty than before weaning.

Four main patterns of development in naughty behaviour can be distinguished during the seven-week period.

(1) In two cases (nos. 4, 10*b*) naughty behaviour becomes excessive and this behaviour persists until the seventh week after weaning.

(2) In six cases (nos. 1, 2, 10*a*, 11, 12, 15) naughty behaviour reaches a climax, followed by a decrease, but these children are nevertheless more naughty at the end of seven weeks than before weaning.

(3) In four cases (nos. 6, 7, 13, 14) naughty behaviour increases, but by the seventh post-weaning week these children have returned to their pre-weaning behaviour.

(4) In one case (no. 8) naughty behaviour increases immediately after weaning, but this is followed by a sudden decrease, and by the seventh post-weaning week the child is less naughty than before weaning, described as 'trying to be good.'

The Appendix also shows the rating of cases according to naughty behaviour at the end of the seventh week after weaning. There is a dramatic change compared with the distribution before weaning. Nine of the cases who were observed for the full seven-week period fall into grades 4 and 5, the remaining four cases being distributed among the other three groups. Seven of the children show constant naughty behaviour and two are excessively naughty, the sample now being composed

mainly of children who have continually to be prevented from naughty behaviour, and who do not listen when reproved.

Summarizing the changes in naughty behaviour after weaning, it can therefore be said that in every case a marked increase in naughty behaviour was observed. In eight cases this increase persists until the seventh week after weaning. In the remaining five cases observed for the full seven weeks, four have returned to their pre-weaning behaviour, and one has become considerably less naughty than before weaning, being described as 'trying to be good.'

(9) *Disturbances during the nights following weaning*

All children were disturbed during the nights following weaning. The main disturbances were:

(a) Disturbed sleep.

(b) Changes in the normal routines associated with going to sleep and waking.

(c) Alteration of the customary sleep posture.

(d) Changes in the individuals the child sleeps with.

(e) Night terrors and fears.

(f) Appearance of dreams.

(g) Changes in the attitude of the child to the breast.

(h) Bed-wetting.

(a) *Disturbed sleep*

All children, except one who slept with her grandmother and took her breast, were disturbed on the night following weaning, although all had previously slept well.

In regard to subsequent nights, half the children were sleeping normally by the end of the observation period (seven weeks), but in the fifth week ten were still disturbed.

The mean intensity of the disturbance, rated on a five-point scale, for all children was greatest on the first night and decreased until the eighth day, beginning to rise again on the ninth night and reaching a second maximum

in the second, third and fourth weeks. By the end of the observational period it was at a minimum.

A study of individual cases showed that this pattern of increased sleep disturbance followed by a decrease and a second increase is very marked in some children, whereas in others it is absent. Those children who were little disturbed after weaning, and began to sleep normally after a few days, do not show the pattern, but merely a diminishing intensity of disturbance (nos. 1 and 3). One child (no. 5) showed only slight disturbance after the first night, which continued to the end of the observation period. A more marked pattern of the same kind was seen in no. 10*b*. In every other case a second maximum is found, its intensity and time of appearance varying from case to case, and it seems that this second maximum is typical of our series.

(*b*) *Changes in the normal routine of waking and going to sleep*

All children except three went to sleep later on the night after weaning than was usual for them. In one child this continued, with one night in which he went to sleep earlier than usual, until the fifth week. In most cases our information is not adequate for making any specific statements about the duration of this disturbance, but most children had several nights during the first week in which they went to sleep late.

There was not sufficient information in the records to determine whether there was any change in the time of waking.

(*c*) *Alterations in customary sleep posture*

Every child had a well-defined sleep posture before weaning and every child but two (nos. 11 and 9) had changed this posture by the end of the first week after weaning, the new posture persisting until the end of the observation period (seven weeks). In most cases the change was from sleeping facing mother to sleeping turned away from her. Child no. 6 slept prone and no. 8 slept supine. Nos. 9 and 11 both retained their pre-weaning sleep posture.

(*d*) *Changes in individual child sleeps with*

Five children who normally did not sleep with their mothers refused to sleep with their customary partner on the first night after weaning (nos. 3, 6, 10*a*, 10*b*, 11). The remainder stayed with mother with whom they normally slept. One child who had slept with a sibling went to its mother and remained with her until the end of the observational period.

(*e*) *Night terrors and fears*

Only two children were reported as being afraid at night before weaning, but neither showed any fears after weaning. Six children, who had not previously had either fears at night or night terrors, developed one or the other within the first week after weaning.

(*f*) *Dreams (excluding night terrors)*

Every child dreamt at some time during the observational period, irrespective of whether it had dreamed before weaning or not, and eight children dreamed within the first week after weaning. However, there is no indication in the data of a marked increase of dreaming during the post-weaning period, though it is possible that there was a slight increase.

(*g*) *Changes in the attitude of the child to the breast*

The attitude of the child to the breast during the nights after weaning showed great individual variations and many different attitudes were demonstrated. Twelve children demanded the breast on the first night and cried a great deal. One child ignored the breast on the first and every other night, one refused the offered breast and one was allowed free access to the grandmother's breast.

All cases, except one, who was given the grandmother's breast every night after weaning, had periods in which the breast was ignored. The length of the periods vary from one night to seven weeks, and did not seem to have occurred at any particular time after weaning.

The other observed reactions do not occur

in any constant pattern and each child may show several. They are as follows:

Demanding the breast: the child cries and asks to be given the breast, or attempts, often violently, to take it and to suck it. Sometimes the child attempts to take the breast by stealth when mother is asleep.

Hiding the breast: the child after asking to see the breast covers it with cloths or tries to hide it in some other way.

Refusing the breast when it is offered.

Attacking the breast by hitting it.

Holding and touching the breasts; the child clutches the breast and frequently remains holding it whilst asleep.

Talking to the breast: saying it is her breast.

Placing a doll at the mother's breast.

(h) *Bed-wetting*

There are no obvious changes in the frequency of bed-wetting after weaning, the children continuing after weaning with the behaviour which was reported of them before.

(10) *Appetite following weaning*

Eleven children were reported to have increased appetite in the first week, three showed no change and one showed a decrease. The appetite remained greater and tended to increase up to, or beyond, the fourth week in seven children, or to the point at which reports ceased.

By the fourteenth day all children except one were reported to have an increased appetite. The one exception, which showed no change in the first week, had an increased appetite by the nineteenth day.

In some cases the increase was very marked, the child stealing food and taking it from siblings, and the mother remarking that she was unable to satisfy the child. The increase was at first more marked in the morning, the child often waking very early and demanding food.

(a) *Changes in eating pattern*

Various changes in eating pattern were observed. Some children refused to be fed by their mothers and threw tantrums if she

attempted to do so; others demanded to be fed by mother.

Instead of eating in its accustomed manner with its siblings, the child would often eat on its own away from them. Most children developed a preference for meat and milk rather than the usual diet of porridge.

(b) *Demand for food and drink every night*

Every child after weaning woke frequently during the night and demanded food or drink, whereas they were not reported as having done so before weaning.

(c) *Probability of these effects being simply due to deprivation of breast milk*

The increased appetite at weaning might possibly be simply physiological due to deprivation of breast milk and not a psychological effect of deprivation of the breast.

This is unlikely, for the child's main diet has been solid food for some months prior to weaning and the amount of milk given by the mother is very little. One fact that supports the view that it is psychological is that the increase becomes more marked as time passes. If it were simply physiological, one would expect the appetite first to increase up to the level necessary to make up for the loss of breast milk and then to remain constant. However, without a careful determination of the amount of milk fed to a child in the few weeks prior to weaning it cannot definitely be stated that the increased appetite is psychologically caused, although it is our impression that the latter is the case.

(11) *The developmental schedule*

Only eleven children could be tested on the modified Gesell Schedule. No changes in developmental level were observed in any child. However, marked differences in the general behaviour of the child during testing were observed in the post- compared with the pre-weaning administrations, and these changes were absent in the control group who had been weaned prior to testing (Table 9). It will be seen that the children show two types

Table 9. *Showing the changes in behaviour on successive administrations of the Gesell Developmental Schedule*

Case no.	First testing	Second testing	Third testing
1	Co-operative but slightly apathetic	Very apathetic. Negative, withholds toys	Very quiet—remains apathetic
2	Co-operative and appears interested	Aggressive towards mother. Throws temper tantrum. Negative, inattentive, withholds toys	Aggressive. Negative. Withholds toys. Inattentive. Temper tantrums
3	Unco-operative and fretful	Negative. Withholds toys. Aggressive. Mouths objects	Extremely negative. Mouths toys. Withholds objects
4	Friendly and co-operative	Negative. Withholds toys. Aggressive. Mouths toys	Less negative than on second testing, but still so at points
6	Co-operative	Extremely apathetic. Negative	Quiet, very apathetic. Mouths toys
7	Interested and excited, easily distracted	Very distractible. Negative. Aggressive	Very quiet and apathetic. Repeats investigator's instructions
9	Quiet and interested	Distractible but very quiet	Negative, apathetic. Withholds objects
10a	Quiet but co-operative	Negative. Inattentive	Very quiet. Inattentive. Hands back objects. Negative. Whimpering
10b	Co-operative. Withholds ball	Quiet. Negative	Very quiet. Negative. Withholds ball
13	Fearful at first. Later laughs. Seems to enjoy tasks	Quiet. Negative	Very quiet. Apathetic. Negative—moves slowly
14	Excitable. Withholds objects	Quieter but aggressive	Very aggressive. Completely negative. Refuses to do test at all
5	Quiet but co-operative	Inattentive and negative	(Not tested)
12	Laughs a lot and appears to enjoy task a great deal	Excitable. Aggressive. Negative. Impatient	(Not tested)

Definitions of the terms used in the above table

Apathetic. The child shows no emotional response to the situation or to the presentation of objects. Sits and stares ahead.

Aggressive. The child throws test objects at individuals, including mother and investigator. Roughly handles toys, bangs and hits them. Kicks, hits and cries.

Negative. The child refuses to respond to the test situation or to a particular test. Negativism may be aggressive where the child resists testing by fighting, or an apathetic negativism where the child withdraws from the situation and simply refuses to carry out instructions.

Inattentive. The child's attention is difficult to hold either because he is excited and easily distracted or because he refuses to listen to what is being said.

Temper Tantrums. The child at some point during the test kicks, screams, lies on its back and cries, bites and behaves aggressively with the test objects.

Distractible. The child demands toys not in use and is difficult to control because it gets up and walks away constantly.

Excitable. The child laughs and talks a lot, manipulates objects wildly.

of reaction on the second testing—either an aggressive one in which the child attacks the toys and the experimenter or an apathetic one in which the child remains quiet but unco-operative. On the third testing the reaction of the second testing remains but may differ in intensity.

Comparing the control group with the experimental it will be observed that only one child showed a marked reaction to the second testing (Table 10).

observed effects are not due to nutritional disturbance. It is important, also, to note that in addition to the weaning there is a rejection of the child by its mother, and that she may be the source of the observed effects.

Because of the difficulty of making inferences from behaviour to psychological states in an alien group, on account of linguistic and other obstacles, we have restricted ourselves almost entirely to a discussion of observed behaviour. We have not, as a result, been able to confirm

Table 10. *The reactions of the control group to administration of the Gesell Schedule*

Child	First administration	Second administration
1	Co-operative +	As first
2	Co-operative +	Co-operative + +
3	Co-operative	Co-operative +
4	Co-operative	Co-operative —
5	Co-operative	Co-operative +
6	Distractible +	Distractible
7	Co-operative +	Aggressive
8	Inattentive at first; later co-operative —	Quiet, co-operative —
9	Quiet, co-operative —	Quiet, co-operative
10	Co-operative + +	Co-operative +

(12) *Reactions of children weaned earlier than usual*

In the course of the investigation we collected reports from nurses and mothers of the effect of early weaning on children. The number of cases that were reported fully were few, and it is not advisable to discuss the results systematically. However, it appears that the earlier the weaning occurs the more marked are the aggressive symptoms. Children show intense temper tantrums and destructiveness, cry a great deal and do not sleep at night. It is in the case of early weanings that mothers have been known to leave home temporarily and to leave the child in charge of another person, being themselves unable to tolerate the greatly disturbed child.

DISCUSSION

There is little doubt, in view of our previous arguments, that weaning in our sample is mainly psychological and that, therefore, its

the psychoanalytic views on the psychological effects of weaning, which refer specifically to states of mind. Our findings do, however, in a general way, confirm the general hypothesis of the psychoanalysts that weaning is disturbing and that the intensity of the effect is proportional to age.

The reaction to weaning varies from child to child in form and intensity. Every child was disturbed, but the disturbance could be a transitory upset lasting only a week or so, or a gross change in the personality of the child which was still present at the end of seven weeks after weaning. The constancy of the weaning procedure implies that the variability is due largely to the previous history and constitution of the child, and we must assume that the effects of weaning cannot be considered without reference to those factors.

It is also evident that the immediate gross disturbance from weaning is usually short-lived. Most of the children in our sample were

normal in the sense of being fairly well, though not fully, adapted members of their society seven weeks after weaning.

If any permanent changes do occur as a result of weaning they are not due to the persistent effect of immediate reactions, such as aggression, but are rather the readjustments of the organism to the effects of weaning. The event of weaning seems to force upon the child the necessity of altering his behaviour in certain ways. That this is so is clear in the case of the child's personal relationships. In all the children the mother comes to be regarded in a different way, the previous close attachment to her, which has existed from birth, being replaced by an apparent indifference which lasts for some weeks. Also, the child develops new relationships of both a positive and negative kind with siblings which in many instances persist and, together with the new attitude to the mother, form a new matrix for the child's social behaviour.

The particular manner in which the relationship becomes reorganized varies from child to child. So far as the mother is concerned, the child in some cases not only renounces her but is at some time very hostile towards her, although in some the child apparently merely renounces his mother; in others it is difficult for him to renounce her altogether and he makes attempts to regain her affection.

Most children were ambivalent, being alternatively hostile and affectionate towards their mothers. Together with the ambivalence, and perhaps being part of it, are attempts to overcome the hostility. Child no. 8, for example, who, the mother asserted, was 'trying to be good,' showed this clearly. Further evidence of ambivalence is seen in the fact that all but five children continued to sleep with their mothers after weaning, though they tended to sleep facing away from her. One child, who had previously slept with a sibling, went to its mother on the night of weaning.

It is interesting to note that the aggressiveness towards the mother spreads into the environment. In this respect again weaning

must be regarded as not merely affecting the child as an isolated organism, but as an event which disturbs both it and all of the small society in which it lives.

Thus, it seems that weaning is an event which produces great changes in the child's social relationships. The important question is how permanent are these changes. For the majority of our sample the change towards the mother is permanent in its form—the child never again recovering the close pre-weaning attachment to her. And their permanence is also seen in the changed relationships to the siblings.

After this readjustment of family relationships, the most interesting finding is the increased maturity of the child. The independence, greater facility in the use of language and the appearance of concern for strangers, all of which persist, give the impression (which the mothers also have and which they seem to expect) that the child has grown up and is no longer an infant. It would seem as if weaning, far from being a merely disorganizing experience at this age, is also a socializing and maturing influence. In earlier weanings, so far as can be inferred from our few reports, this does not appear to be the case. In them the disorganization of behaviour is very gross and would appear to outweigh any socializing influences. Also, these early cases do not appear to be able to adjust so easily to the loss of the mother as the later cases, for they continue to be greatly disturbed for a longer period.

If one looks at the nature of the socialization and of the changed social relationships of the child, it appears that they are the result of two factors. A replacement of the mother as a love object by others in the environment (there is perhaps also an aggressiveness towards any object that is identified with the mother, as we observed in twelve cases). That is, the attitudes to the mother are displaced to the environment. The second factor is the isolation of the child from the environment. He sits alone and goes off on expeditions of his own and also takes note of strangers who previously were not part of the family. It would seem as if the child has

given up his close dependence upon others and on the family as a result of his mother's rejection and has been forced, by his hostility, to isolate himself and to become an independent being. It may be, if this interpretation is true, that the child in adapting to the effects of weaning undergoes a sudden increase of ego development. That is, he becomes more aware of himself as an independent entity separated from this environment, and takes active steps to adapt himself to this environment, and it to him.

The one symptom which showed the greatest tendency to continue was the aggressiveness. Taken in conjunction with the increased maturity of the child, it implies that weaning produces an individual both more mature and more inclined to make active demands upon his environment than the unweaned child.

The two immediate reactions of apathy or of 'excitement' are interesting in that they appear very similar to reactions observed by Ribble in children deprived of maternal support and which Bowlby (personal communication) has also observed in deprived children. The determinants of the two reactions are not evident from our data, and neither is it clear whether the later behaviour of children showing the two reactions differs. The variability of pre- and post-weaning behaviour within the two groups is as great as that between them, and with such a small sample using qualitative methods it is impossible to be definite. It seems, however, that these two reactions are fundamental in the reaction of infants to deprivation, and it would be worth investigating whether there might not be genetic as well as environmental factors present.

Aggressiveness, besides being the most persistent of all the immediate reactions, seems to tend to increase rather than to diminish and may, or may not, be accompanied by an increased naughtiness. It begins very soon after weaning, usually on the first night, and may be considered the most immediate reaction to weaning. It is, also, the most disturbing reaction, as it is the main cause of the disturbances in the child's social relation-

ships, and especially of his relationship with his mother. Its continuance and its frequency both seem to imply that it is of very great importance. Naughtiness, on the other hand, appears later than aggression and must be regarded as a secondary effect resulting from an organized attempt to control the situation. One may, perhaps, interpret the aggressiveness as a non-specific reaction directed at first against the mother and then the environment and the naughtiness as a more specific and controlled direction of the aggression. If this is the case, then we again have evidence that weaning intensifies, after an initial disorganization, the controlling mechanisms in behaviour. The undifferentiated and more primitive aggression gives place to the performance of acts with an aggressive aim, but of a kind which are known by the child to cause greater disturbance in the family. (It will be noted that all the naughty acts are highly directed in that the child chooses just those forms of behaviour, such as spilling water, which are very disturbing in the society in which he finds himself.) There may be a further reason for the persistence of aggression. It seems that so far as the aggression is not directed to the mother and does not disorganize the social relationships of the child or its own activities it may be regarded as a socially useful form of behaviour, for it enables the child to gain its own ends. This, and the fact that a certain amount of aggression is encouraged and tolerated in Zulu society, may be the reason why this change persists; as well as being the main initiator of the changes, aggression may eventually become a valuable result of weaning, once it is directed in a socially approved manner.

The changes tend to show a cyclic character which is particularly evident in the relationship of the child to its mother. We have already noticed that he may, after a period of attacking his mother, change his behaviour to a more demanding form. This is replaced later by attacks, and the alternation continues for a period, when, in most cases, the child gives up these responses to its mother. This alternation, which was characteristic of all the behaviour

we observed, makes it seem as if the child is attempting, in an active way, to adapt himself to the situation of being rejected by his mother. He does not merely react by frustrated behaviour, but undertakes various activities which may be regarded as attempts, first, to restore the mother to her original position and, later, to exist without her support. Again, it seems as if the child is compelled by the weaning to become a mature and independent person, and achieves this only after a period of readjustment involving several trial solutions; for example, demanding the mother, trying to please her, attaching himself to another person, aggressively trying to influence his mother by naughty behaviour. The immediate reaction seems to be one of attack and aggression which, in the face of the frustration received, is to be expected. It is only after this preliminary disorganized form of behaviour that the attempt at adaptation occurs. It is important to emphasize here that weaning does not appear to be simply a disturbance in response to frustration

which gradually settles down, but that it involves, after a preliminary disturbance, a series of active adaptive changes in the organism, and may, at the age of about eighteen months, be a most powerful stimulus to ego development.

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APPENDIX I

(1) The following case histories are abstracts from the original protocols.

(2) The day of weaning is day 0.

(3) The sections in the histories preceded by roman numerals refer to the following aspects of behaviour:

I. Affective behaviour.

II. Social behaviour.

III. Naughty behaviour.

IV. Aggressive behaviour.

(4) Arabic numerals in brackets are ratings on the behaviour dealt with in the sections in which they occur.

(5) Post-weaning ratings of behaviour were made on the forty-ninth day.

Case no. 1. Male. 22 months at weaning

Pre-weaning ratings

Aggressive: 2.

Naughty: 1.

Pre-weaning behaviour

(I) Rather bad-tempered. Neither noisy nor quiet.

(II) Most attached to mother but also very fond of nurse-girl, Vaselina. Remains at home with gogo* when mother and Vaselina away. Plays mostly with two-year-old cousin Mavis. Most of his play occurs in a group.

Day of weaning behaviour

(I) Very quiet.

(II) Intermittent attacks on mother—crying and demanding the breast—otherwise quiet and solitary.

(IV) Abrupt increase to (3).

Post-weaning ratings

Aggressive: 4+.

Naughty: 4.

Post-weaning behaviour

(I) First three days after weaning he was much quieter than usual and very bad tempered. On day 6 quiet alternated with crying, fretfulness and extreme bad temper, but on day 7 he only cried

when mother is present but very quiet when she is away. By day 35 he still has periods of extreme quiet when he sits apart, but otherwise he is playing normally, neither exceptionally noisy nor quiet, and this persists until day 49.

(II) Day 0 very quiet, but fights in group and refuses to play, even with Mavis. Ignores mother except to point at breasts as though puzzled. Completely ignores Vaselina. By day 3 fighting with everybody except Vaselina, of whom he is suddenly very fond. Takes food and eats with her—plays with her alone. By days 6 and 7 he is friendly with no one, fighting even with Vaselina and a great deal with Mavis. Particularly aggressive towards mother. By day 13 he cannot play at all without fighting. By day 21 he has not improved and worries mother intensely by cheekiness† and naughtiness. By day 28 naughtiness has become intermittent and he has become very attached to gogo, calling for her each night before he goes to sleep. Most attached to Vaselina and remains with her rather than go to mother, whom he practically ignores. By day 49 he is still unable to participate in group play without fighting, and this is said to be getting worse. He is firmly attached to Vaselina, preferring to be with her rather than others in the home. He seldom goes to mother, or has anything to do with her.

(III) On day 3 becomes very naughty. This persists until day 7, when the behaviour becomes restricted to periods when mother is present—this continues till day 14. Between day 21 and day 35 naughty behaviour excessive whether mother is present or not. By day 49 no longer excessive but still marked.

(IV) Increase till day 6, when a further increase to (3+) is noted. This persists until day 35, after which time fighting and bad temper is still marked. By day 49 an even greater increase in fighting is reported (4+), and he is said to be getting worse. Fights with everybody including mother. Cannot play without fighting—constantly demands own way.

Case no. 2. Male. 15 months at weaning

Pre-weaning ratings

Aggressive: 1.

Naughty: 2.

* Gogo, Grandmother.

† The word 'cheeky' is a literal translation of the word used by the mothers: ulaka.

Pre-weaning behaviour

- (I) Happy child who rarely cries.
- (II) Very closely attached to mother with whom he spends all his time. Also friendly with sister Pumeleni and plays with her.

Day of weaning behaviour

- (I) Cries a lot.
- (II) Very angry with mother—cries and follows her about everywhere, not letting her out of sight. Attacks her aggressively.
- (IV) Abrupt increase to (4).

Post-weaning ratings

- Aggressive: 4.
- Naughty: 3.

Post-weaning behaviour

(I) Day 0 cries a lot but on day 1 crying alternates with periods when he sits quiet and withdrawn and is described as 'unhappy'. On day 2 he is extremely quiet except for crying during aggressive spurts. On day 6 he cries less. This does not last because on day 9 he is crying hard again, apparently without reason, he is cheeky and stubborn and on day 10 still crying, and has an exceedingly short temper. This continues unabated until day 21, and though there is a short period of improvement by day 35 we again find him constantly crying, screaming and throwing temper tantrums, particularly when checked for naughtiness. By day 49 he is less fretful and cries less, but is cheeky and cannot take teasing without losing temper.

(II) Day 1 he keeps away from mother, refusing to go to her when she calls. Does not go to Pumeleni but stays on his own. On day 2 he is still very quiet, sits alone and does not play. On day 3 he is very aggressive towards mother and Pumeleni. By day 6 he is fighting with both mother and Pumeleni a great deal, but on day 7 is slightly more friendly towards mother. However, on days 8 and 9 he reverts to being irritable and aggressive with both mother and Pumeleni—being particularly stubborn when asked to do anything by mother. On day 10 he fights with Pumeleni constantly and refuses to allow mother to touch him or pick him up, screaming and crying if she attempts to do so. Day 13 still naughty and cheeky—stubborn and aggressive when rebuked for naughtiness. Fights with Pumeleni a great deal. By day 21 he is unchanged, although now when he cries he goes to mother

and holds the breast in his hand, as though comforting himself. By day 35 he is less openly aggressive towards mother, though he still throws temper tantrums when she will not allow him his own way. Still fighting a great deal with Pumeleni. By end of day 49 he is slightly more friendly towards Pumeleni, though they still quarrel a lot. With mother he is irritable and bad tempered, but less so than the preceding weeks.

(III) Reported as 'too unhappy' to be naughty until day 6, when naughty behaviour is observed. By day 10 he is very naughty and this increases until day 13, when naughty behaviour is excessive. This persists between days 21 and 35, improves by day 42 and by day 49 is naughty but not excessively so.

(IV) Complete absence of aggressive attacks for two days. On day 3 begins to fight with sibling (3), this gradually increasing until by day 10 he has reached (4), throwing temper tantrums, aggressing against everyone and is very bad tempered. This continues without change until day 49.

*Case no. 3. Female. 15 months at weaning**Pre-weaning ratings*

- Aggressive: 2.
- Naughty: 3.

Pre-weaning behaviour

- (I) Not a quiet child. Does not cry much.
- (II) Fond of mother but does not spend much time with her except when at the breast. Very fond of Meslina (nurse), with whom she spends a lot of time. Has a favourite playmate, Ralph, aged 7, from a neighbouring home. Also fond of her gogo, but only sees her once or twice a week.

Day of weaning behaviour

- (I) Avoids mother but plays as usual. Cries in the night.
- (II) Ignores and avoids mother all afternoon and that night refuses to sleep with her, preferring to sleep with gogo, who is assisting the weaning. During the afternoon she remains with Meslina.
- (IV) Complete absence of aggression.

Post-weaning ratings

- Aggressive: 2.
- Naughty: no record.

Post-weaning behaviour

(I) Day 0 she again plays, although she has little to do with mother—only cries in the night. On day 3 she is the same, but cries when gogo leaves the home. On day 4 she is becoming very naughty and cries when checked, and on day 5 she is crying for her own way. Day 6 she cries a great deal, then sits quietly for a time, but later continues crying, and this persists until day 10 when she is crying a lot.

(II) Day 1 she still ignores mother and refuses to go to anyone but Meslina—that night again sleeps with gogo (gogo not present during the day—only comes at night). She also plays with Ralph. On day 2 she is spending all her time with Meslina and gogo and is very fond of both of them. She still avoids mother and fights with some children who come to the home. On day 3 her attitude to her mother is still unchanged. She avoids her and resists her when she attempts to pick her up. She cries when gogo leaves in the morning, but is exceptionally fond of Meslina and asks to be carried on her back. On day 4 she is pleased to see gogo arrive and sits by her in the evening, but for first time since weaning sleeps with mother and will not go to gogo. She is very aggressive towards mother in the night although still ignoring her in the day. Still very fond of Meslina and plays with her. The same on day 5, although she again fights with a child who comes to the home. Plays with Ralph peacefully however. On day 6 she attempts to stab Meslina with a knife after mother has refused to give her a sweet she has been eating. However, she sleeps with Meslina this night. Did not only threaten Meslina with knife—though attack mainly directed against her—she also threatened mother and others. She is now more aggressive generally, and fights with neighbours she was formerly very friendly with. By day 8 her aggressiveness has increased and she is even less friendly with Meslina. By the last interview on day 10 she is still aggressive and playing aggressive games with Ralph—seems more friendly with Ralph than before. She is much less friendly with Meslina than she was even before weaning, and she is still having very little to do with mother.

(III) No naughty behaviour reported for first four days, but on day 5 a sudden burst of naughty behaviour, but on day 6 is very naughty, becoming more so, until by day 8 naughty behaviour is excessive, persisting until the last interview on day 10.

(IV) Complete absence of aggression until day 2, when original pre-weaning score of (2) reported. By days 4 and 5 aggressively attacking family with knife and fighting a lot, but this lessens again and by day 9 back to (2). (End of observations.)

*Case no. 4. Male. 15 months at weaning**Pre-weaning ratings*

Aggressive: 3.

Naughty: 3.

Pre-weaning behaviour

(I) Happy child who does not cry a lot.

(II) An illegitimate child left alone a great deal by mother, although he usually goes to her when she returns from anywhere. Fondest of all of Fikalephi, a four-year-old cousin, and spends much of his time with her. Also gets on well with his sister Sizakela and with the other children, though occasionally they fight. Quite attached to Ntombazasha, his nurse-girl, and also to gogo with whom he remains when mother is away. The mokoti (bride) is always at home and he spends a lot of time with her as well.

Day of weaning behaviour

(I) Cries when mother leaves, then very quiet until he cries again when she returns.

(II) Cries bitterly when mother leaves home and when she returns in the evening. While she is away he remains with Ntombazasha—very quietly on her back.

(IV) Quiet but unhappy.

Post-weaning ratings

Aggressive: 4+.

Naughty: 5.

Post-weaning behaviour

(I) Day 0 cries when mother leaves; becomes very cheeky on day 1 and by day 2 is crying a lot, being irritable as well—crying and whimpering persists until day 14, but by day 21 after mother has been away, he is very quiet—much quieter than ever before. By day 28 he is still quiet—only crying when he sees the breast—and by day 49 he is still quieter than before, though playing and fighting a great deal at times.

(II) Day 1 he plays with Fikalephi and suddenly begins to take a real interest in the mokoti—spends

more time with her than before (she is suckling a baby). On day 2 he no longer cries for mother, but ignores her. He plays with Fikalephi but fights a lot with Sizakela. Is no longer friendly towards others and refuses to shake hands with strangers as he used to do. On day 3 he is crying whenever mother is present—also when she leaves. He no longer ignores her and constantly demands her attention. He also becomes far more friendly with gogo and even sleeps with her and sits with her when everyone is inside. By day 6 he is very cheeky and fighting with everyone, except gogo and Fikalephi, with whom he is very friendly. He does not care to be with mother and fights with her when she stops his naughtiness. He has made friends with grandfather, who came home 5 days after the weaning and spends a lot of time with him. Still likes Fikalephi best of all. By day 8 he has not fought with mother for some time, and is back to ignoring her, but on day 9 he again cries when she leaves home and attempts to follow her. Now he spends most of his time with grandfather. On day 10 he begins to cry and to follow mother about, refusing to let her out of sight and demanding her attention constantly. By day 13 this behaviour has increased—he cries whenever she leaves. He fights with everyone except Fikalephi, but when reprovved for naughtiness he goes to gogo or to grandfather. On day 14 his behaviour towards mother is unchanged. Then she leaves home for three days, leaving him with gogo, and when she returns he ignores her completely and treats her like a stranger when told to shake hands with her. This day, day 17, he greets interviewer in the way in which he used to greet mother when she returned, running to her and wanting to be carried, laughing and holding out his arms. Although mother has been home for three hours, and was grinding in the hut, he has not been to her at all. By day 20 he still does not want to have anything to do with mother, though he no longer completely ignores her. He is now extremely fond of gogo. By day 23 he is taking very little notice of mother but he cries when he sees her breast. She leaves home again, this time permanently to work, and he is left with gogo. By day 49 he is a naughty aggressive child, fighting with everybody but fond of gogo.

(III) By day 3 very naughty but only when mother is present. By day 6 naughty behaviour not confined to times when mother is about, and on day 13 reported to be getting worse. By day 21 mother has left home and child quite 'unhappy';

lull in naughty behaviour, followed by a gradual increase until by day 49 he is excessively naughty; shows no sign of improvement.

(IV) Day 1 an abrupt reversion to (3) which has increased to (4) by day 6. The increase continues until day 49, after which he is markedly aggressive in his play (4+). Reported to have killed a chicken.

Case no. 5. Male. 16 months at weaning

Pre-weaning ratings

Aggressive: 2.

Naughty: 2.

Pre-weaning behaviour

(I) Does not cry much at all.

(II) Spends a lot of time with mother when she is at home, but she is away a lot. Very fond of nurse-girl Philomena with whom he is left. Also loves to be with and to play with father, who comes home in the weekends.

Day of weaning behaviour

(I) Quiet, only cries in the night.

(II) Ignores mother and avoids her, refusing to go with her when she calls. Fights with her during the night, and twice goes to Philomena when he is crying bitterly.

(IV) Aggressive first night.

Post-weaning ratings

No record.

Post-weaning behaviour

(I) On day 1 is fretful and whimpering, and on day 2 cries when mother leaves. But on day 3 he is quiet again; this persists until day 6 when he is crying and fretful when mother returns in the evening; has not stopped by day 7, when he is crying and whimpering a lot. By day 12 he is also crying in the night, and this continues until the last interview on day 14.

(II) On day 1 he ignores mother and stays with Philomena even when mother is present. This continues until day 3, when father comes home and he spends all his time with him, hardly going to mother at all. On day 6 after father has left he is crying and fretful whenever mother is about, and on day 7 is constantly asking to be mama'd and cries when mother leaves. On day 8 he asks Philomena to mama him, and again takes little

notice of mother. By days 12 and 13 he cries when mother leaves him and when she is at home wants to be with her constantly. Fights with siblings and even appears less fond of Philomena.

(III) and (IV) Unsatisfactory information; case abandoned.

Case no. 6. Female. 18 months at weaning

Pre-weaning ratings

Aggressive: 2.

Naughty: 2.

Pre-weaning-behaviour

(I) Laughs and plays a lot. Rarely cries.

(II) Very fond of mother and spends a great deal of time at the breast. Prefers To, her nurse-girl, to all the other children with whom she also plays (though they do sometimes fight). Is also quite fond of gogo who lives in the home.

Day of weaning behaviour

(I) Crying and fretful.

(II) Cries bitterly and fights with mother, demanding the breast. Goes to To after each fight with mother.

(IV) An immediate and abrupt increase to (4).

Post-weaning ratings

Aggressive: 4.

Naughty: 2.

Post-weaning behaviour

(I) Day 0 is crying bitterly. From day 1 to day 6 is fretful—cries and whimpers, but when being naughty becomes very quiet. On day 6 also very noisy when playing, and until day 14 she remains fretful, bad-tempered and troublesome and by day 28 has fallen ill.

(II) Day 1 she plays with group of children and rarely goes to mother except to fight with her. Spends a lot of time with To. On day 5 she is generally aggressive—towards mother especially, and is fretful and whimpering when she is about, and towards other children. Refuses to allow siblings to eat and runs away with their food. Twice she asks gogo for her breast, but otherwise shows no increased fondness for gogo. On day 6, however, she appears to be very fond of gogo, and although she does not repeat her request for the breast she spends a great deal of time with her. She seldom takes any notice of mother and does not cry when

she leaves in the mornings. She is even more fond of To than previously; although she plays with the others, she is naughty and aggressive with them. This picture remains unchanged until day 11, when she becomes extremely fretful and demands to be carried about on mother's back. By day 14 she is very troublesome, whimpering and demanding the breast from mother. She cries when mother leaves and returns and fights with her at night. By day 21 she is still troublesome and still demands mother, but is spending more time with the others and fighting a great deal while playing. This demand for mother gradually lessens until day 35, when she seldom stays with mother. Is very fond of To but fights with the other children, still attempting to prevent them from eating. By day 49 she is the same, though she occasionally cries when mother leaves home. She spends very little time with her when she is there and is most attached to To.

(III) By day 5 very naughty; day 6 excessive. Persists until day 14, but up till day 21 intermittent and by day 35 back to normal. This persists till the end.

(IV) Increase to (4) persisting to day 49.

Case no. 7. Male. 19 months at weaning

Pre-weaning ratings

Aggressive: 1.

Naughty: 4.

Pre-weaning behaviour

(I) Happy laughing child who never sits quietly doing nothing.

(II) An easy, close attachment to mother. Very fond of eighteen-year-old Khupukele and spends a great deal of time with her. Also attached to gogo. A friendly affectionate child who does not fight much and enjoys playing in a group of children.

Day of weaning behaviour

(I) Cries at first and then becomes quiet and looks very unhappy.

(II) Cried when mother left and when she returned sat on her lap quiet and unhappy. Did not eat well nor did he play that evening.

(IV) No aggression on first night.

Post-weaning ratings

Aggressive: 1.

Naughty: 4.

Post-weaning behaviour

(I) On day 1 he is still very quiet, but cries when mother leaves him. On day 2 he whimpers and cries, refusing to allow mother to leave him. Remains on her back, very quiet, never laughs, unhappy. By day 3 this has become worse—he cries at night and by day, but when crying does not make a sound on mother's back. By day 5 he is crying less and very quiet and by day 7, though he cries while mother is away, he is very much quieter than before. On day 9 he is fretful and whimpering but quiet when mother is away and crying less. This continues till day 21, when he cries only when demanding the breast, and is otherwise still rather quiet. Remains this way till on day 49 he is less noisy than before weaning. He still occasionally whimpers fretfully for no apparent reason.

(II) On day 1 he refused to leave mother—cries whenever she puts him down and wants no one else near him. Fights with everyone who attempts to take him from mother. Will be friendly with no one, and even refused to go to Khupukele when she called. By day 2 he is fighting with mother, attacking the breast and demanding it but still refusing to leave her at all—constantly wants to be carried on her back and she cannot put him down for a minute. By day 3 he is ill and his behaviour is worse—cries and fights for breast. Will have nothing to do with anyone except mother. This behaviour continues until day 5, when mother is able to leave home for a while because he is a little less demanding, and remains with gogo, but she has to carry him on her back the whole time. On day 6 he remained with Khupukele and did not give any trouble at all. On day 7 he plays a little with the other children and is slightly more friendly with gogo and Khupukele though with neither of them is he the same as he was before weaning. By day 9 he is still following mother around whimpering, but much less than previously. He plays with the others and goes to Khupukele as long as mother is not present—as soon as she returns he becomes fretful and wants no one else but her. Yet on day 10 when she returns he ignores her completely. Later he goes to her again and still spends a lot of time with her, but no longer cries for her constantly. He is playing with the others, but is not a happy child when he plays. Still not returned to normal with gogo and Khupukele. By day 11 he is spending very little time with mother and playing a great deal, though he is not particularly friendly with any one person. By day 21 he is very fond of Khupukele and

cries whenever she leaves him. He is also fond of gogo, and when he cries goes to her for comfort. He plays a lot with the others and has very little to do with mother. By day 42 he is friendly with everyone in the home, but there is still no one he is exceptionally fond of—even Khupukele is treated like everyone else. He does not spend much time with mother nor sit with her as often as he used to. In most cases he does not even greet her when she returns home but goes on doing whatever he is doing. This behaviour continues until day 49.

(III) For the first seven days the child refuses to leave mother. After this, naughty behaviour is observed, but no more than before weaning. By day 42 the behaviour is no longer excessive and he returns to pre-weaning behaviour, which persists to day 49.

(IV) On day 1 he fights with everyone except mother to whom he clings. By day 2 he is markedly aggressive (4), attacking mother, her breast, and everyone in the house. Refuses to leave mother but fights with her constantly—continues till day 7. By day 9 there is another change, he no longer fights at all and is described as being very unhappy. By day 21 back to (1), does not enjoy fighting, and this persists till day 49.

*Case no. 8. Female. 18 months at weaning**Pre-weaning ratings*

Aggressive: 4.

Naughty: 3.

Pre-weaning behaviour

(I) Laughs, sings and dances, more noisy than quiet. Cheeky. Cries when punished.

(II) Fond of mother and Domcian her sister. Also fond of gogo. Plays with other children a lot, but also fights with them a great deal. Attached to brother Philip but not as much as to Domcian.

Day of weaning behaviour

(I) Whimpers and runs away when shown the breast, otherwise very quiet. Cries bitterly during the night and talks a lot.

(II) Runs whimpering to Domcian when she sees mother's breast, but fights with Wilbert when they try and join in a game she is playing with mother.

(IV) During day and night aggresses only against sibling (3).

Post-weaning ratings

Aggressive: 1.
Naughty: 1.

Post-weaning behaviour

(I) Days 1 and 2 not fretful but fights a lot and talks a great deal in the night. Day 3 more cheeky than before and whimpering, wanting to be mama'd. Day 4 crying and fighting, till day 8 when still troublesome and crying. Days 9 and 10 crying less and whimpers at night. Day 14 very noisy and fighting and between days 21 and 35 cries and fights all night, though does not cry in the day. By day 49 she is back to normal.

(II) Day 1 she will have little to do with mother and spends a great deal of time with Domcian, seeming very fond of her though fighting with her a lot at the same time. Wants to be taken on her back constantly. On day 2 she talks to mother most of the night, keeping her awake though she does not attack her at all. She is still spending a lot of time with Domcian on day 3 and hardly any time at all with mother, though she refuses to allow Domcian either to face mother in bed at night or to go near her in the day. Her attitude to Philip changes vastly and she spends all the time with him after he comes home from school. On day 4 she is fighting and crying all the time—mainly with Domcian and other small children. Does not care for mother, but her fondness for Philip is increasing. By day 8 this has reached a state where she eats, dresses and washes when he does these things—she imitates him in everything. Has begun to attack mother, especially when rebuked for her naughtiness, which is increasing. On day 9 she is fighting more than ever with everyone save Philip. By day 11 she is fighting and hitting mother a lot and refusing to do anything mother tells her to do. Her attitude to Philip and Domcian remains unchanged. By day 21 we find her behaviour towards mother has worsened—she attacks her every night and demands to be taken to gogo, then to come back to her bed. Fights with everyone except Philip. This behaviour persists until day 42, then suddenly she stops being troublesome—rarely fights and is described as 'trying to be good'. Does everything mother wants her to do and makes a determined effort to please mother. This persists until day 49.

(III) By day 4 very naughty, by day 9 much worse. Persists till day 28, when it becomes intense; this continues for one week, when she

suddenly becomes excessively good. This lasts till day 49.

(IV) Day 1 increases to (4+). By day 4 is far worse (4+ +), and this persists until day 28. Fights with children in the day and with mother in the night. Between days 28 and 49 there is a gradual lessening, and by the end aggressive behaviour is almost absent (1).

*Case no. 9. Male. 17 months at weaning**Pre-weaning ratings*

Aggressive: 2.
Naughty: 2.

Pre-weaning behaviour

(I) Not a quiet child—always busy and rather noisy. Laughs a lot.

(II) Very fond of mother and spends a lot of time at the breast. Also fond of gogo with whom he stays when mother is out. Gets on well with brother Ephraim, although they fight.

Day of weaning behaviour

(I) Whimpers when shown the breast and avoids mother, and is very quiet and unhappy.

(II) Very afraid of mother and avoids her—whimpers when he sees the breast.

(IV) Abrupt change to (4).

Post-weaning ratings

Aggressive: child sick.
Naughty: 3.

Post-weaning behaviour

(I) Till day 3 crying alternates with period of quiet, but day 4 cries only when naughtiness is checked. Days 10 and 11 crying a lot again with occasional periods when he sits quietly alone. By day 21 is crying a lot at nights, but then falls ill and remains ill till the end of observation.

(II) Day 1 he threatens to hit his mother. Irritable and fighting with other children. Demands to go to gogo and does not want her to pay attention to anyone but himself. On day 2 he is becoming more fond of gogo and does not seem to be very pleased when mother comes home, as he was in the past. On day 3 he is fighting a great deal with Ephraim, though on the whole he is still friendly towards others. This day he cries when mother leaves him but also starts walking in the direction of gogo's home on his own. On day 4 he is playing

less and crying a lot, especially when reproved by mother for being naughty. On day 6 he starts to suck from gogo's breast, and although she does not produce any milk, he demands her breast whenever he sees her. By day 11 he attacks mother and her breast and needs her less than ever before. He still takes gogo's breast and prefers being with gogo to being with mother. By day 12 gogo complains that he is hurting her breasts by sucking, biting and pulling them in an attempt to make milk appear. This continues till day 15, and he gradually needs mother less and less, then he falls ill, but by day 28 is better again and fighting a great deal, spending very little time with gogo who still suckles him. On day 23 he is very ill and wants none and nothing—by day 32 he even ignores gogo when she is present—by the end of day 49 he is still ill and is fed by mother alone.

(III) Quiet till day 4 when very naughty; this continues till day 11. Falls ill, and though there is a brief return to naughty behaviour by day 28, he again falls ill by day 35 and remains so until the end.

(IV) Abrupt change to (4) on day of weaning which persists until day 9—then lessens to (3) which continues till day 28. By day 35 very ill, and this continues till the end of observation.

Case no. 10a. Male. 21 Months at weaning

Pre-weaning ratings

Aggressive: 3.

Naughty: 2.

Pre-weaning behaviour

(I) Rather a quiet child. Cries quite often, but usually for some good reason.

(II) Crippled child who spends a lot of time with mother, but perhaps even more fond of nurse-boy, Thomson, with whom he occasionally sleeps. He is friendly with twin sister Phezile, though they fight quite a lot because they are jealous of one another. Fond of gogo—does not play in a group because he cannot walk—stays mostly with Thomson.

Day of weaning behaviour

(I) Cries and demands breast but becomes very quiet each time he finds it bitter.

(II) Constantly asks mother for breast though he cries when he has taken it. Refuses to sleep with

Thomson, though he has been doing so, and sleeps with mother instead.

Post-weaning ratings

Aggressive: 3+.

Naughty: 4.

Post-weaning behaviour

(I) Up to day 5 he is very quiet, occasionally crying when he wants to be mama'd or when he wants meat. By day 6 he is crying a lot when mother is at home, but is still quiet when she is away. This persists until day 11, when he cries when mother arrives home and otherwise just sits quietly. On day 12 he becomes very bad tempered, and by day 13 is also crying and whimpering in his sleep. By day 21 he is naughty and cheeky; this persists till day 49, when he still cries at night and is very naughty and troublesome.

(II) Day 1 he is quiet and not fighting even with Phezile. But on day 2 he cries for breast and fights with Phezile. He demands Thomson all the time, asks to be carried on his back, calls him 'mother' and asks for his breast. On day 3 he is demanding breast from both Thomson and mother and fighting a great deal with Phezile. By day 5 he is fretful whenever mother is present—still refuses to sleep with Thomson and is quiet otherwise. By day 11 he is spending most of his time with Thomson even when mother is present. He cries when she returns. By day 13 he cries when mother returns and sometimes fights with her, fights a lot with Phezile and becomes jealous when she is with her mother. Only goes to Thomson when mother is not at home. By day 21 he is quiet and giving no trouble—staying mostly with Thomson, but by day 28 he is again fretful and crying a lot when mother is about and also fights so much with Phezile that she is afraid and runs away from him. This behaviour has increased by day 35, when he is refusing to go to Thomson at all, fighting with Phezile more than ever and seems to prefer being with mother than with anyone else. By day 49 he is spending more time with Thomson again when mother is away but they fight a lot. He is still fondest of mother.

(III) For first five weeks no increase in behaviour reported. By day 42 sudden increase, and very naughty behaviour continues till day 49.

(IV) Alternates between almost total absence of aggressive behaviour and extreme aggression. By end of day 49 a score of (3+) and is more aggressive than pre-weaning.

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Dated

Case no. 10b. Female. 21 months at weaning

Pre-weaning ratings

Aggressive: 2.

Naughty: 3.

Pre-weaning behaviour

(I) Cheeky—cries fairly frequently. Noisy and active.

(II) Very fond of mother—particularly, though quite fond of Thomson. Fights with Bonginkosi (twin brother) because of jealousy. Very fond of aunt whom she does not see very often. Plays more than Bonginkosi, in a group of children.

Day of weaning behaviour

(I) Quiet and avoids mother.

(II) At first avoids mother completely and will not go anywhere near her, though she watches Bonginkosi asking for the breast (from a distance). Later she attacks mother and then refuses to sleep with her, sleeping instead with Thomson.

(IV) Abrupt change to (4).

Post-weaning ratings

Aggressive: 3.

Naughty: 5.

Post-weaning behaviour

(I) Until day 5 remains very quiet though still active. Also cries for meat occasionally. On day 6 crying and cheeky, particularly crying when rebuked for naughtiness, but by day 11 is crying when mother is present. By day 13 bad tempered and crying. By day 21 naughty and cheeky and this persists until day 49.

(II) On day 1 she is very quiet and on day 2 she attacks mother and demands to be mama'd constantly. Also fights a lot with Bonginkosi. On day 3 she returns to sleep with mother, but this might be because Bonginkosi is now sleeping with mother again. On day 4 she is no longer friendly with Thomson and refuses to go to him when he calls her. She attacks the breast. By day 5 she is fighting with everyone but refuses to leave mother and demands her attention constantly. However, during the night when Bonginkosi woke and cried a bit she fetched his bottle for him and tried to comfort him. On day 11 she still cries when mother drives and wants to stay with her all the time. When mother is away she is quiet. By day 13 she is very jealous of Bonginkosi when he is near to

mother. She cries when mother is at home and often hits her, but is otherwise quiet. On day 14 she is fighting with Bonginkosi about their bottle. On day 20 she has become cheeky and unmanageable with mother, and is fighting a great deal with Bonginkosi. On day 27 goes to stay with her aunt and when she returns she cares very little for mother. By day 34 she sits by mother only when she eats—then leaves straight away. She is also fighting a lot with Bonginkosi. By day 49 is terribly naughty, and there is no one in particular that she is friendly with.

(III) Increases in naughty behaviour observed on day 4 which increases, until by day 11 it is extremely marked, especially when mother is present. By day 28 it is excessive and has not improved by 49.

(IV) At first absence, then back to (3) alternating with (4), until there is an increase over the pre-weaning score to (3).

Case no. 11. Female. 22 months at weaning

Pre-weaning ratings

Aggressive: 2.

Naughty: 2.

Pre-weaning behaviour

(I) Mostly rather quiet. Cries during fights.

(II) Spends very little time with mother who works. Does not have the breast much, nor does she sleep with her. Very fond of gogo who suckles her, and with whom she sleeps. She fights with cousin Xhola who is also suckled by gogo—mainly about gogo's breast. She is also very fond of her brother Lawrence and of her father who occasionally comes home (this is an illegitimate child). Enjoys playing in a group of children, and does not often fight.

Post-weaning ratings

Aggressive: 4.

Naughty: 4.

Post-weaning behaviour

(I) On day 1 playing normally, but by day 3 is making far more noise than usual—also whimpers for mother and cries when father leaves. Day 5 cries when she sees mother but by day 10 she is so quiet she is seldom heard, even when playing, and only occasionally cries when mother leaves for work. On day 13 a bit fretful and cries when given

food with Xhola—otherwise quiet alternates with a lot of noise, and by day 35 she has changed remarkably, whimpering, crying and being fretful. By day 49 she cries a lot and whimpers for no reason. When she is playing she is very noisy and shouts a lot.

(II) Day 1 she takes very little notice of her mother and quarrels with Xhola about the breast. On day 2 father pays a visit and she cries bitterly when he leaves. She whimpers when mother is about but otherwise seems to ignore her. This behaviour toward mother persists until well into the second week. All this time she is spending a great deal of time with gogo—crying every night to be taken to sleep with gogo, and taking the breast a lot, quarrelling endlessly with Xhola. By day 13 she is refusing to eat with Xhola, fights and bites him and does not go to gogo when he is at the breast. She is playing more on her own and hardly ever seems to join the group now. By day 21 she still prefers gogo to mother but she no longer cries when mother is about. She alternately ignores and demands mother's attention—still refuses to eat with Xhola. By day 35 mother stops working and we find an abrupt change in Tholwepi's behaviour. She whimpers and cries and demands the breast from mother though she continues sleeping with gogo and fights with Xhola about her breast. On day 47 she refuses to sleep with gogo and seldom takes the breast from her. She sleeps with mother and cries a lot for the breast. Fights with other children a lot when she does play with them. She still dislikes Xhola, and though she sometimes eats with him, there are still times when she refuses to do so.

(III) No increase until day 21; afterwards increases, until by the end of day 49 she is very naughty.

(IV) Remains the same until day 11 when she is reported to be more aggressive (3); on day 12 has further increased to (4), which persists till day 49.

Case no. 12. Female. 18 months at weaning

Pre-weaning ratings

Aggressive: 1.

Naughty: 1.

Pre-weaning behaviour

(I) Neither quiet nor noisy. Not cheeky and does not cry a lot.

(II) A very close relationship exists with mother and there is no one else she is extremely friendly

with. She is fond of Victor who looks after her, and also of sister Busisiwe, but only plays with them when mother is not present.

Day of weaning behaviour

(I) Very quiet but whimpers when mother leaves.

(II) Fights during the night.

(IV) A slight increase.

Post-weaning ratings

Aggressive: 4+.

Naughty: 4.

Post-weaning behaviour

(I) Day 1 very quiet and not at all happy. This continues for three days, and on day 4, though whimpering a lot, is less unhappy and playing a little. On day 5 she is much noisier than usual and seems to be getting more so. Cries and fights. On day 6 she is the same and also cries when mother leaves. By day 12 this behaviour has increased and she has been crying a lot as well as being very noisy, talking a great deal and shouting at people. By day 14 she is also naughty and stubborn. On this night she cries in her sleep, wakes and continues crying. By day 21 she still cries, wanting to be mama'd and hits those who do not reply to her. By day 35 she is still noisy, but has fallen ill and at day 49 she is less noisy. Some days she is very noisy and on others she is quiet. On the whole she is cheeky and occasionally cries at night.

(II) Day 1 she is spending very little time with mother; is no longer a friendly child—even with Busisiwe. She is quiet and stays by herself. By day 4 she is playing with others as before but fights a lot. She asks mother to mama her a lot, fights about the breast, and whimpers when with mother. Is getting fonder of Busisiwe than she was before, but does not want her to go anywhere near mother. On day 5 is playing and fighting a lot—also quarrelling with Victor and Busisiwe and mother when she is really angry. On day 6 cries when mother leaves home—she no longer fights with mother, and again asks to be mama'd a lot. She is fighting much more than she has ever done when playing with the others. By day 8 she is again very fond of mother and enjoys playing with her, though she still attacks her a lot. She is also very fond of Busisiwe. However, by day 12 she is fonder of playing with the others than of staying with mother, though sometimes when called to play she looks unhappy and refuses to go. She

fighths a lot with mother when she is naughty. She is afraid of strangers. By day 21 there is a brief return to a demanding attitude to mother when she asks to be carried on her back constantly. However, at the end of this week she is attacking her when she does not satisfy her demands immediately. By day 35 this behaviour is intensified and she refuses to listen when mother talks to her. By day 49 she is getting fonder of mother, and though friendly with others she fights a lot and is not as friendly with them as she is with mother.

(III) On day 4 very naughty, and this increases to a maximum till excessive by day 8. This continues without improvement until illness during fifth week. Increase again after illness but no longer excessively naughty—on some days she is worse than on others.

(IV) A slight increase and then absent till day 4, when there is marked aggressive behaviour (4), increasing until day 49 (4+).

Case no. 13. Female. 21 months at weaning

Pre-weaning ratings

Aggressive: 1.

Naughty: 1.

Pre-weaning behaviour

(I) Rather noisy in play, rarely cries.

(II) Loves mother very much and spends a lot of time with her. Also fond of father who lives at home, and Essie her nurse. Jealous of Wilson when he is near mother but gets on well with Simon. Prefers playing with others to being on her own.

Day of weaning behaviour

(I) Whimpers, then quiet, and plays till night, when she fights and cries.

(II) Whimpers and asks mother to wash her breasts, then ignores her for the rest of the afternoon and plays with Wilson. Fights with mother at night.

Post-weaning ratings

Aggressive: 1.

Naughty: 1.

Post-weaning behaviour

(I) On day 1 she cries to be taken on mother's back. She is very 'bright' and laughs a lot in a way she did not do before. On day 2 she is still noisy and naughty, 'bright and clever' and laughing gaily,

and this continues till day 3. On day 4 she has become quieter when mother is not present, but by day 8 again she whimpers, laughs, talks to the breast, is cheeky and not quiet. By day 12 seems to have settled down and just plays, neither quietly nor noisily, and although she talks more it is not noisy talk. On day 13, however, she begins to talk 'baby talk', is less quiet and cries in the night. On day 14 again is quieter when mother is away. By day 14 she falls ill after which she cries when mother leaves—this continues till day 35 and becomes less by day 49.

(II) Day 1 she alternately attacks mother and demands her attention. Refuses to go when mother calls her. By day 3 she still prefers being with others to being with mother, and on day 4 begins to be very naughty, but only when mother is at home. By day 8 she is getting more friendly with father and is cheeky with mother, fighting with her. By day 12 she is even more friendly with father and has taken to sitting with him in the evenings before going to bed. Plays with the others, but fights a lot because she demands her own way. Still the same towards Essie as before. On day 13 she ignores mother when Essie is there. By day 18 there is a change and she is crying to be carried on mother's back. She goes to father rarely now. By day 35 she has been ill and since then has been fonder of mother, crying when she leaves and going to her in the evenings. By day 49, however, she is less fond of mother than before weaning and no longer cries when she leaves, but she is extremely fond of Essie and cries when she goes away. She fights with mother a lot, and threatens that a dog will bite her when she refuses the child's demands.

(III) Day 3 very naughty and on day 4 even more so, but only when mother is present. On day 8 improvement and return to pre-weaning behaviour which persists till end of day 49.

Case no. 14. Male. 24 months at weaning

Pre-weaning ratings

Aggressive: 4.

Naughty: 4.

Pre-weaning behaviour

(I) Very noisy—never sits quietly on his own. When he does cry, cries a lot.

(II) Very fond of mother and spends most time with her. Also fond of nurse, Zondikele, and of

father with whom he often plays. Plays with brother Zwelibanzi, but they fight a lot as he is jealous when Zwelibanzi is near mother. He prefers playing in a group to playing on his own, but he fights a great deal with everybody while playing.

Day of weaning behaviour

(I) Very quiet, and though demanding the breast does not cry. Seems puzzled—only fights at night—cries and throws temper tantrums.

(II) At first ignored mother and remained with Zondikele but fought with mother all night and threw temper tantrums, twice leaving mother and going to Zondikele, then back to mother. Also pretended to stab Zwelibanzi with knife.

(IV) Remains the same.

Post-weaning ratings

Aggressive: 3.

Naughty: 4.

Post-weaning behaviour

(I) Day 1 crying hard and throwing temper tantrums. Day 2 quiet when finds breast bitter, otherwise plays and fights noisily. Day 3 sits quietly on mother's lap saying and doing nothing. By day 6 is crying constantly and whimpering; cries a lot at night. Day 7 still fretful and crying for no apparent reason. Short-tempered. Day 8 very troublesome and fretful—wakes at night and cries. Day 9 becomes fretful towards evening and cries at night—this persists until day 11, when still whimpering and fretful; worse by day 12, when he only cries, and does not play or laugh much. By day 13 is even worse, whimpering and crying bitterly and will not let mother leave him—crying and whimpering at night as well, and no longer makes a noise. By day 15 shows some improvement but still wants mother constantly, but by day 19 the whimpering and crying has almost disappeared. By day 28 he cries and fights and throws temper tantrums. Always making a noise—never quiet. But by day 35 is ill and remains with mother. Becomes better and returns to normal, but by day 49 begins asking for the breast again and whimpering as well as being very noisy.

(II) Day 1 fighting a lot with mother—then going to Zondikele, then back to mother. By day 2 fights with everyone except Zondikele of whom he is very fond—asking her to mama him and running to meet her when she returns from school. On day 3 he refuses to go to father, still

fights with mother, and after telling Zwelibanzi to suck from the breast will not allow him to do so. Hits him and fights with him a lot. By day 6 he is still fighting with everyone except Zondikele, and this continues until by day 12 he is exceptionally fond of her and will have nothing to do with anyone else. Suddenly on day 13 he refuses to leave mother, demands her constantly and will not even go to Zondikele. By day 15 he is slightly improved and has resumed playing, and starts fighting with mother again, but fights with everyone else as well, particularly Zwelibanzi, with whom he refuses to eat. By day 25 he is seldom with mother, spending all his time with the other children away from home. He fights with everybody, and throws temper tantrums whenever he is refused his own way. By day 35 he has fallen ill and again refuses to leave mother. As soon as he is well he begins fighting with Zwelibanzi again, and by day 49 he will not take food with Zwelibanzi. After his illness he becomes fond of mother again, whimpers and even asks for the breast. He does not fight with her unless she refuses to give him what he wants. When he plays with the others he is fighting less.

(III) From day 2 onwards naughty behaviour gets worse until excessive, but suddenly on day 9 refuses to leave mother and seems very 'unhappy', neither playing nor being naughty. By day 21 naughty again, and by day 35 excessively. Falls ill, then returns to pre-weaning naughty behaviour till day 49.

(IV) Remains the same till day 2, when we get an abrupt increase to (4+), worse by day 7 (4++), persisting till day 12. Falls ill on day 13, but by day 28 back to (4++), another illness by day 35, after which does not return to pre-weaning level, and by day 49 is (3).

Case no. 15. Male. 21 months at weaning

Pre-weaning ratings

Aggressive: 2.

Naughty: 2.

Pre-weaning behaviour

(I) Noisy though sometimes plays quietly. Not quick-tempered. Never sits alone doing nothing.

(II) Spends a lot of time with mother and has the breast often, but also spends quite a lot of time with nurse, Chashila, and is very fond of her. Sometimes seems to prefer being with Chashila to being with mother. Fond of two other women, Mambelu and gogo as well. Enjoys playing with brother

Bekumuzi and also of playing in a group—he does not fight much.

Day of weaning behaviour

(I) Plays with others and ignores mother but fights and cries all night.

(II) Remains with Chashila and only goes to mother at bed-time. Then he fights with her all night.

(IV) Abrupt change to (4).

Post-weaning ratings

Aggressive: 2.

Naughty: 4.

Post-weaning behaviour

(I) Day 2 plays a great deal—noisy, but cries for mother at times. On days 3, 4, and 5 throws violent tantrums. On day 7 is very noisy during play and sings a lot—very cheeky and still throws temper tantrums, which continue till day 17 together with a lot of noise. By day 21 the tantrums have stopped, but he is 'so noisy he does not know what it means to be quiet'. By day 28 he has begun to cry for mother when she leaves, and is still naughty and noisy—which continues till end, though he no longer cries for mother.

(II) Day 1 he does not go to mother but cries when he sees her—has begun fighting a lot with Bekumuzi. After this he gradually gets more and more aggressive towards mother and more fond of Chashila, until by day 7 he spends all his time with Chashila and takes no notice of mother except to fight with her and throw temper tantrum when she stops his naughtiness. He has also become fonder of gogo, but fights a lot with Bekumuzi. This persists unchanged except for an increase in aggression towards mother and others until day 11, when we find him also fighting with gogo. After day 14 the temper tantrums become less frequent, but up to day 22 he is still fighting a great deal and remains the same towards mother and Chashila, not taking any notice of mother at all when Chashila is present. Then suddenly on day 23 he refuses to leave mother, demanding to be with her all the time and crying for her. Also cries for Chashila, but spends practically all the time with mother, and no longer fights with her. He becomes less dependent on her again after this until a visit to her maiden home in the fifth week, after which he appears to be very fond of her, spends a great deal of time with her, and less time with Chashila. How-

ever, he is troublesome and naughty, but mainly with others in the home—gogo particularly complains of him. This persists until day 49.

(III) Day 2 marked increase in naughty behaviour which by day 7 has become excessive. No improvement by day 13, and the first improvement can be seen by day 25. By day 49 he is still very naughty, but no longer excessively so.

(IV) Drop on day 1 and day 2 to (1). Gradual increase again until day 8 (4+ +); marked temper tantrums which persist till day 28. By day 35 tantrums have lessened and by day 49 back to pre-weaning level.

APPENDIX II

Children showing marked increases in aggression following weaning

Case no. 1. By seven weeks this child was fighting a great deal and was reported to be getting worse. (The following description of his behaviour applies equally well to the remaining children, all of whom were described in similar terms, and all of whom showed a similar tendency to quarrel easily and to make unprovoked attacks upon others.) 'When fighting he hates to be defeated and must have his own way.' 'He often hits people and objects with sticks, stones or with his fists for no apparent reason'. 'He is constantly quarrelling.'

Case no. 6 was particularly aggressive at meal-times, when she ran off with other children's food, refused to allow them to eat, and cried bitterly when she was forced to return the food.

Case no. 10b showed similar behaviour in throwing water on others' food and making it inedible.

Cases nos. 11 and 14 showed marked aggression at meal-times, refused to eat with certain members of the family and fought if given food in the same dish.

Case no. 4 tore a chicken apart and had to be prevented from killing others. He also showed pleasure in hitting pigs and dogs.

Case no. 13 demanded her own way constantly, and was described as very 'cheeky'. She fought with mother a great deal and threatened to 'knock her out'. If a request was refused she threatened to send a big dog to bite her mother.

Case no. 11. Before weaning case no. 11 originally had had a marked fear of fighting, but by the end of the seventh week after weaning she was completely changed. She fought constantly and usually initiated the fights that occurred.

THE EFFECTS OF MOTHER-CHILD SEPARATION: A FOLLOW-UP STUDY

BY JOHN BOWLBY, MARY AINSWORTH, MARY BOSTON
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INTRODUCTION

The problem

Numerous investigations in the past twenty years have made it clear that young children, who for any reason are deprived of the continuous care and attention of a mother or mother-substitute, are not only temporarily disturbed by such deprivation, but may in some cases suffer long-term effects which persist. The evidence for this has been reviewed by Bowlby (1951), and reference to the literature therefore will be confined to those studies which are particularly relevant to the present investigation. This originated in an earlier study by Bowlby (1944), in which a number of delinquents referred to a child guidance clinic were compared with a number of non-delinquent children referred to the same clinic. First, it was found that a significantly higher proportion of the delinquents had suffered prolonged separation from their mothers in their first five years of life. Secondly, amongst these delinquents there were a number who were unable to make any permanent, mutually satisfying love relationship with other people; practically all these children with 'affectionless character' formation had been separated from their mothers for more than six months in early childhood, in contrast to the much smaller percentage of other delinquents who had had such an experience. These findings strongly suggested that a break in the continuity of the mother-child relationship at a social stage in the development of the child's

permanent impairment of the ability to make relationships.

This hypothesis, which had first been advanced by a number of workers in the years 1937-41 (Powdermaker, Levis & Touraine, 1937; Levy, 1937; Bowlby, 1940; Lowrey, 1940; Bender & Yarnell, 1941), is, of course, a special case of certain well-known psychoanalytic hypotheses regarding personality development. These state in effect that the core of healthy adult personality is the ability to make continuous stable and co-operative relationships with other persons, especially love objects, and that the satisfactory development of this ability in the adult is dependent on its healthy development in childhood, especially during the first three or five years of life, when the child is making his first social relationships—those with his parents. These psychoanalytic hypotheses state further that the majority of personality disturbances, and of neurotic and even psychotic symptoms, are the end-results of a dysfunctioning of the personality in the field of object relations. It was this general theoretical orientation which led Bowlby and others to pay special attention to early mother-child relations in their inquiries. Bowlby (1944) suggested that the frustration engendered by the separation was likely to cause, on the one hand, increased libidinal and aggressive impulses and, on the other, a lack of the usual inhibitory superego function, the development of which is dependent on satisfactory relationships with love objects. After his full review of the literature (1951) he later concluded that prolonged separation caused a variety of personality disturbances, of which the 'affectionless character' might be the most characteristic and the most serious.

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In order to test and refine these hypotheses it was clearly necessary amongst other investigations to compare the personality functioning of a number of children who were known to have experienced such separation in their early years with a control group of others. In 1948, when this study was begun, only one worker had reported such comparisons, namely, William Goldfarb (1943*a*, *b*, *c*, 1944*a*, *b*, 1945*a*, *b*, 1947 and 1949). Goldfarb had found marked differences between a group of foster-children who had spent most of the first three years of their lives in an institution, and another group, similar in other essential respects, who had from their early months lived with foster-families. These differences were apparent when both groups of children were between ten and fourteen years old and living with foster-parents, as well as when the children were younger and the institution group still in the institution. Many of the children who had spent the early part of their lives in an institution showed a very restricted capacity for making relationships with other people. This Goldfarb attributed to the lack of opportunity for developing relationships with adults in their early years. The institution children were also characterized by aggressive, distractible, uncontrolled behaviour, with impoverished, undifferentiated and passive personalities, their reactions being altogether at a primitive and infantile level. This was in spite of their having lived subsequently in foster-homes for a number of years. The personality of the severely institutionalized child as described by Goldfarb was thus similar in many respects to Bowlby's description of the affectionless character and the clinical descriptions of other workers.

Although Goldfarb's study goes a long way towards confirming the clinical hypothesis, his sample is only one of many which could be studied. In particular, it is characterized by an extremely severe degree of deprivation. For example, most of the children in his main study (1943*b*, 1944*b*, 1945*a*, *b*, 1949) had had no opportunity to make any relationship with a mother figure from soon after birth (the age

varied from one to nine months with a mean of 4½ months) until the age of 3½ years, and all had suffered permanent separation from their own mothers. Other follow-ups, therefore, seemed desirable both as further tests for the general hypothesis, about which there was then (1948) much more scepticism than there is now, and also to throw clearer light on the limits within which it held true. What, for instance, was the outcome in children who experienced less extreme degrees of deprivation? Bowlby's study of forty-four thieves had suggested that children whose separations had occurred neither so early nor for so long, although seriously disturbed, were less impoverished in personality than those described by Goldfarb and that they did not suffer intellectual deterioration. The present investigation was undertaken to explore the problem further.

The present investigation

In field studies of this kind there is much difficulty in selecting a suitable sample. An ideal sample, which would be a group of children for whom a separation experience in early childhood was the only adverse factor in their histories, hardly exists; almost always there is a medical or social reason for separation and this frequently in itself is emotionally disturbing. In any one study, therefore, it is impossible to isolate the effects of separation from the effects of other experiences. The best that can be done is to study a group of children whose experiences associated with separation are reasonably well known and to compare the characteristics of such a group with those found in other groups. It is because when this is done that common effects are found to follow separations characterized by widely differing associated variables that it is permissible to conclude that the responsible influence is in fact separation (see Ainsworth & Bowlby (1954) for an extended discussion of these problems).

The sample chosen for this study comprised a group of children who, because they had had tuberculosis, had been separated from their mothers in a sanatorium for a period of their

early childhood. There were several reasons for this choice:

(a) The sample was homogeneous in respect of separation experience and reason for separation; and the experience which the children had undergone, whilst constituting a fairly long separation, was appreciably less severe than that experienced by Goldfarb's children. Actually the experience proved less homogeneous than had been hoped for because some of the children had been separated before the sanatorium experience, sometimes in a succession of other hospitals, and others had suffered separations after being in the sanatorium.

(b) The illness was a reason for separation which seemed independent both of the likelihood of bad psychiatric inheritance and of unfavourable relationships within the family, in contrast to the reasons leading children to be sent to residential nurseries for long periods which are usually either that the child is unwanted and neglected or that the family has broken up. In the event, unfortunately, the family backgrounds proved less satisfactory than had been hoped for. Very many young tuberculous children come from families where other members, especially parents, have tuberculosis (by whom they have been infected) so that illness and death are common, with their attendant disturbed family relations and depressed economy. (Some account of these findings has been published elsewhere (Rosenbluth & Bowlby, 1955).)

(c) We were fortunate in finding a sanatorium which offered a good field for research, in that the children's ward had been continuously under the administration of the same physician and ward sister for the previous eight years. Thus the nature of the separation environment was known and was thought to have been reasonably similar for all children. The staff of the sanatorium was co-operative, and it was possible to establish links with the families of the children by means of the local chest clinics which had maintained contact with the children after discharge from the sanatorium.

The disadvantage of this sample, as of all other possible samples, is the unknown influence of the associated variables; in this case the children were ill during their separation and confined to their cots for rest during much of the time. To reduce the possible effects of such experience any child whose illness was complicated by either bone or abdominal infection was excluded from the sample, which was confined to children who had uncomplicated pulmonary tuberculosis. Even so, in assessing the outcome in these children the particular experiences in addition to separation which they had undergone must be remembered.

The main outcome of this study is the picture which has been obtained of the range and variation of personality pattern which exists in a group of school children all of whom have had a separation which, although prolonged, is not as extreme as that undergone by Goldfarb's group. These clinical appraisals were built up from data obtained from interviews of parents by a psychiatric social worker, amplified by reports from teachers, and from intelligence testing. An account of the range of personality patterns is given in Part IV.

Before this material is presented, however, the results are given of a comparison which was made between the present school behaviour of the sanatorium children and that of a control group of their class-mates, matched for age and sex, but random in regard to separation. This comparison which is given in Part III was made on the basis of data obtained from teachers' reports and intelligence testing. No interview data were obtained on the control group because of the well-known difficulties of obtaining co-operation from a control group and of the magnitude of the task of interviewing.

In addition to such scientific value as these findings may have, the project has been of value to the writers in drawing their attention to the great practical problem inherent in a follow-up study of this kind and to the limitations which the data obtained have for answering the theoretical and practical

questions raised in the investigation of the effects of maternal deprivation.

THE SAMPLES

The sanatorium group

The gross sample was obtained by extracting from the sanatorium records every child who had been admitted before the age of four years, between 1 January 1940 and 30 November 1948 inclusive, a period during which the ward regime was constant. From the gross sample there were eliminated children whose primary tuberculosis was complicated by bone or abdominal infection, who had left the county, who had gone into the care of other institutions, who had died, whose mothers were known to have died, or who were not yet of school age. The resulting sample consisted of sixty children, of whom forty-one were boys and nineteen girls. At the time the sample was selected it was believed that they had all returned to their homes and were attending schools in the county.* They had entered the sanatorium at various ages, up to four years, and had remained there for varying lengths of time. Since later it was found that twenty-two children had experienced a separation of two weeks or longer prior to entry to the sanatorium, often in other hospitals, age at

* Eight children were subsequently found not to be living with their own mother at the time of the home interview. In two cases the mother was alive, and in six she had died. Of the living mothers, one had separated from her husband leaving the child with him and the other lived with her own parents while the child lived with the parents of her deceased husband. Of the dead mothers, one had died prior to the child's sanatorium experience and it was to an adoptive mother (an aunt) that the child returned; the father, having remarried, was living separately. In the other five cases the mother had died after the child's return from the sanatorium; one of these children was living alone with the father; one was living with father and step-mother; one was cared for by other relatives, not by the father who had remarried; one was an orphan living with relatives; and one was an orphan living in a residential school, but with a relative as a guardian.

separation and length of separation take this into account. The range of age at the first known separation and the total length of separations up to the age of seven years is shown in Table 1.

Table 1. *Distribution by age at first known separation and total length of separation of sanatorium children*

Total length in months	Age at first known separation (in months)				Total
	0-11	12-23	24-35	36-47	
0-5	0	3	2	0	5
6-11	3	5	5	0	13
12-17	5	3	7	3	18
18-23	2	3	5	3	13
24+	3	1	3	1	8
Total	13	15	22	7	57†

† Accurate information on these points was not obtained in three cases (see later p. 216).

The age at follow-up (taken as the age of the child on 1 July 1950 when about half the investigation was completed) ranged from six years ten months to thirteen years seven months. The distribution by age at follow-up and by sex is shown in Table 2.

Table 2. *Distribution by age at follow-up and sex of sanatorium sample*

Age at follow-up	Boys	Girls	Total
6 years to 7 years 11 months	8	2	10
8 years to 9 years 11 months	13	10	23
10 years to 11 years 11 months	12	2	14
12 years to 13 years 11 months	8	5	13
Total	41	19	60

As is inevitable in a follow-up of this kind the children were widely scattered and were in no less than fifty-eight different schools, comprising primary, secondary modern, secondary grammar, two private schools, a special school for physically handicapped children

and a school for educationally subnormal children. Two children, at the time of assessment, were spending a short period at an open-air school.

Since the outcome of a separation experience is partly dependent on the child's experiences whilst away, it is necessary to give a brief description of the experiences undergone by these children.* The sanatorium ward comprises an arc of cubicles and small wards with large glass doors all fronting on to a concrete ramp leading to a lawn. On admission and for the following ten days the young child is placed by himself in a single cubicle adjoining the sister's office as a quarantine precaution. During these ten days he is nursed by a few senior nurses only, to help him over the initial disturbance of his new experience, and various medical examinations are conducted. Gastric lavage, which requires extraction of stomach content by means of tubing passed through the child's nose, may upset the child, so also in lesser degree does the taking of blood samples. Medical examination of this kind is repeated at intervals throughout treatment. As the children in the sample had uncomplicated primary tuberculosis, no surgical treatment was necessary; but when other conditions necessitated it, surgical intervention occurred, e.g. tonsillectomy. During at least the first three months of treatment the child is confined to his cot to provide maximum rest. In stages which vary greatly from child to child he is allowed up for increasing periods of play, culminating in a period of being up all day for some weeks before going home.

The nursing system, as is usual in hospital wards, does not provide substitute mothering for the children (which is possible only if the child is cared for by very few nurses) though in other respects nursing is good and the children's material needs are well provided for. Most of the nursing staff are students in training and have to move to other wards at short intervals and, since nursing is on a shift system, the

child's experience over a few months is that not only is his daily care shared by a number of nurses but nurses leave and new nurses come. Sister is permanent and the staff nurses stay for about six months. But it is no criticism of the nurses to say that under a system of this kind they cannot provide forty to sixty children with a sense of attachment to a trusted adult.

Nursery-school teachers and cleaning orderlies are more permanent than the nurses. If an unhappy new child is difficult with eating, a motherly cleaner may be delegated to comfort and persuade him for days or weeks until he is able to manage. Teachers give the children occupations in their cots on five days a week and in the nursery school when they become fit to attend; but their role is mainly that of teacher. The comprehensive care which a mother usually gives and which is largely experienced through bodily care in these early years is fragmented between different members of staff to the detriment of any attachment.

Variation in the children's experience of human relationships is mainly in their contact with their own families. Visiting time is two hours on Sunday afternoon and most children are visited then by their parents. But the sanatorium is twenty miles from London and difficult of access, and most visitors have to give up a whole day to the occasion. In some instances, therefore, parents alternate to give each other relief from the strain of weekly visiting over long periods and sometimes relatives deputize. Children whose parents are themselves ill or have died of tuberculosis are even more deprived of contact with parents.

Although the general experience of children undergoing treatment at this sanatorium was known, for the particular sample studied there was inevitably much that was unknown—the particular treatment experience of each child, the methods and attitudes of the nurses who handled him, the attitudes of visiting parents and relatives, and the child's subjective experience of illness. In addition, twenty-two

* We are indebted for this description to Mr James Robertson.

of these children were from one to five months in a variety of general hospitals while awaiting sanatorium vacancies; little is known of their experiences then, although the retrospective reports of parents often made reference to disturbed behaviour in the early stages of separation. Enough is known, however, to make it clear that in many important respects the experiences of these children had been much less severe than those of the children studied by Goldfarb. Whereas all of Goldfarb's group (1943*b*) had lost their mothers at some time during their first year of life, less than a quarter of the sanatorium group had begun separation before one year of age, and half of them had been over the age of two. Whereas Goldfarb's children were permanently separated from their mothers, first spending about three years in an institution and then placed with foster-parents, the majority of the sanatorium children, by being visited, retained contact with their families during the period of separation, and later returned home. Whereas all members of Goldfarb's group were in an institution for at least two years, only one in seven of the sanatorium children had so long an experience of hospital, the majority being away for less than eighteen months. The expectation therefore was that, though the children would show considerable personality disturbance, it would on average be less in degree than that shown by Goldfarb's sample and the disturbance might well vary considerably from child to child both in degree and the form taken.

The control group

The control group comprised children matched for age and sex with the sanatorium children. For each sanatorium child, the three children in the same school class who were nearest in age and of the same sex were chosen. The age, sex and class distributions for the controls are therefore the same as for the sanatorium children, although the control group is three times as large. Nothing was known about the controls except that they had not been in

the sanatorium during the period from which the sample was selected. In respect of separation, therefore, they are a random group and neither a non-separated group nor representative of the general population (see p. 217, footnote). They are also a random group in respect of home background, which, it can be assumed, varied from very good to very bad. They were selected from the same school classes as the sanatorium children, the same teacher reporting on all four children, so that any unreliability or bias of the teachers would be reflected also in the control group. The control group was thus, in the same way as the sanatorium group, scattered over fifty-eight different schools. In each class involved four children were concerned, i.e. one sanatorium child and three controls.

The actual selection of the control group proved more difficult than had been anticipated. Although the schools were most co-operative and helpful in allowing access, and the teachers gave up considerable time to filling in forms, the principles on which the control group was to be selected were not always understood. Initially, it was left to the teachers to select the controls from the class register according to the agreed criteria. It was found, however, that in some cases the age criteria were not strictly adhered to, and children who, for example, were thought representative of their age group or a credit to the school were occasionally selected. Thus the selection of controls had ultimately to be made by the field-workers, and it was necessary to check the selection of controls in each case, and in some cases to obtain new reports on some sanatorium children together with reports on fresh controls. For some of the sanatorium children there are thus two reports available, and for a few of these there are two sets of controls which meet the criteria for selection; in these cases the controls assessed by the teacher whose reports were judged to be the more reliable were used (see later for a discussion on the reliability of teachers' reports). In three cases reports on controls were not obtained because the sanatorium child was

attending a special school.* These considerable variations in procedure account for the fact that the samples used for the statistical comparisons are never greater than fifty-seven and are often many fewer.

Execution of the project

The preparation for the project and in particular the selection of the sample involved a great deal of preliminary field-work. The county medical officer invited the medical superintendent at the sanatorium and the tuberculosis officers in charge of the nine chest clinics to give facilities for the follow-up, and the field-workers visited each unit and discussed plans and purposes in detail. At each stage care was taken to gain co-operation on the basis of understanding and appreciation of objectives, and much time was given to discussions with everyone whose help was sought—physicians, welfare officers, almoners, nurses and teachers among others. Very generous co-operation was obtained. Clerical staff at the sanatorium abstracted all possibly eligible children from records according to the age and period criteria, and the field-workers refined the sample by recourse to chest clinic and education authority records. By this means every child who remained in the county was

traced, sometimes through several changes of address. Finally, permission was obtained from the local education officers to visit the head teachers of the schools which the children attended.

A number of personnel were engaged on the project. The field-workers, referred to above, were two members of the research team, a psychiatric social worker (James Robertson) and a psychologist (Mary Boston). For purposes of visiting the fifty-eight schools and testing the children, these workers were assisted by six educational psychologists who were approaching the end of their training. The analysis of the data obtained in schools was undertaken by two research psychologists (Mary Boston and Mary Ainsworth). The interviewing of parents described in Part IV was undertaken by a second research psychiatric social worker (Dina Rosenbluth), who joined the two research psychologists in the analysis of the data obtained and in making the ratings and classifications based on them. Finally, to avoid bias, for the purposes of certain of the comparisons made two clinical psychologists, not associated with the research and not informed of the results, undertook (a) the evaluation of the items on the teachers' report forms and (b) an assessment of the children's behaviour in the test situation.

* Not obtaining controls in these three cases was mistaken. At the time the decision was made, it was assumed that a randomly selected group of the class-mates of the sanatorium children would constitute a cross-section of the *normal* school population, and on these grounds children attending special schools because of some disability were excluded from the control group as not normal. It was later realized that the control group is representative neither of a normal school population nor of the school population as a whole; it is merely a group of the classmates of the sanatorium children. As such it should have included the classmates of the three children in special schools, just as it included the class-mates of children who were in the lower streams of academic achievement. In statistical comparisons of the sanatorium group with the control group these three children have inevitably been omitted.

COMPARISON WITH CONTROLS

Nature of data

The data used for the comparison of the sanatorium children with the controls comprise information on the present behaviour, educational progress and intelligence of the children and are derived from two independent sources: (a) a teacher's report form, (b) a psychologist's report.

Teacher's report form

This form (see Appendix) was designed to help teachers to give a description of the child's behaviour as seen in school. The first part consists of twenty-two items, covering the child's

relationships with the teacher and with other children and his work and play activities. For each item there are two, three or four choices covering all likely manifestations of behaviour, only one or two of which can be regarded as indicating satisfactory adjustment, the others indicating deviations in different directions or degrees. The remaining parts of the form give the teacher the opportunity to note any symptoms which may have been observed, to comment on the child's attendance, health and school progress and to make any general comments on the child or his family which he cares to give. The information requested on the form was carefully limited to concrete items of behaviour of which the teacher might be expected to have first-hand knowledge and avoided all other questions, including those relating to personality traits. Experience of report forms built on these lines had been obtained in the British Army during the war, and the form used in this investigation had been tried out in connexion with another project.* By framing the report in this way it was hoped partly to avoid the well-known unreliability of questionnaires, especially those which ask for global assessments of such complex functions as neurotic and delinquent tendencies (see, for instance, the discussion by Burt, 1945).

Each teacher co-operating in the investigation was asked to complete forms for the sanatorium child and the three controls in his class. Where possible, the form was introduced to the teacher concerned in a personal interview and the nature of the investigation and method of filling up the form was discussed; in some cases, however, a discussion could not be held with the class teacher, and the head teacher explained what was required, a procedure which proved to be very unsatisfactory. The forms were left with the teachers to be filled in and returned. Sixty different teachers were

concerned, as each of the sanatorium children was in a different class.

Unfortunately, it did not seem possible for the teachers to remain ignorant of which among the four children was the sanatorium child. In many cases the teacher was already aware that the child had been in a sanatorium. In any event it was felt necessary to explain the nature of the research to the teachers in order to gain their co-operation in the selection of controls and in reporting on the adjustment of the children. They were told that a follow-up of sanatorium children was being conducted in order to see how children who had been in hospital settled down on returning home, and that therefore it was desired to compare the present behaviour and school work of the sanatorium child with a random group of his class-mates. The teachers were not told what differences might be expected.

It was recognized from the outset that the reliability of the teacher's reports for the purpose in hand was likely to be uneven both because of the unevenness of the briefing, inevitable when fifty-eight different teachers had to be briefed, and because of individual differences between teachers both in their knowledge of the children and in their ability to report objectively on them. Nevertheless it was believed that the differences between the sanatorium and control children might be sufficient to be clearly manifest even with such a relatively crude instrument—a belief which was not confirmed. A special problem, which experience in the British Army had shown to be difficult to eliminate entirely, is the reluctance of a superior, when reporting on someone for whom he is responsible, to mark items which he feels to be adverse to the subject even though these are phrased to read very mildly. Although the report form used in this investigation had been constructed to allow for this reluctance, experience with its use showed that the difficulty had not been wholly overcome. In some cases, therefore, information felt by the teacher to be adverse to the child has certainly not been recorded. It should be noted that such bias as this introduces must tell

* This was an attempt to obtain a full psychological and psychiatric picture of a representative sample of eight-year-old boys in a school in a London suburb.

against the hypothesis being confirmed, since more adverse information is to be expected in the case of the sanatorium group than in the controls.

Psychologist's report

Each child in the sanatorium and control groups was given a Stanford-Binet Test (1937 revision, Form L), and a report was written commenting on the result and on the behaviour of the child in the test situation. Unfortunately the testers were not briefed regarding the type of report to be written; although they all followed the usual clinical practice of commenting on the behaviour of the child in the test situation, the various testers differed considerably in the amount of detail given.

The testing conditions varied considerably from school to school and were sometimes far from ideal. Most schools were able to provide a separate room in which the children could be tested, but, in one or two, odd corners had to be used which were not entirely free from interruption. The children were told that four of them had been picked at random from the school to take part in an investigation. They were not tested in any particular order; the teacher was usually asked to send the most confident child first. The testers already knew which child was the sanatorium child, since a major purpose of their visit to the school was to enlist the co-operation of the teachers.

The data deriving from these two independent sources permitted three principal comparisons to be made between the sanatorium children and the controls:

- (a) a comparison of behaviour using data from the teacher's report form,
- (b) a comparison of intelligence quotients deriving from the psychologists' reports,
- (c) a comparison of the children's behaviour in the test situation, also deriving from the psychologist's reports.

The question arises whether and to what extent the validity of the data on which these comparisons depend is impaired by the fact that both the teachers and the psychologists

knew which child was which when making their reports. In the case of the teachers the likelihood seems remote, since at this date (1949) little was known by the public of the hypotheses being tested. There is a greater chance of its having influenced the psychologists, though, apart from the research psychologist, even they were not well informed in regard to deviations to be expected. Though there is no way of estimating to what extent such influences may account for the findings, the consistency of the two independent sets of data in respect of certain deviations from the norm suggests that both sets are tolerably valid. This is discussed further after the comparisons have been presented.

Comparison of intelligence quotients

Since this is the simplest of the comparisons to be made, it is convenient to consider it first. Goldfarb in his comparison of institution and foster-home children found that the severely institutionalized children were not only extremely impoverished in personality, but also showed serious intellectual retardation. In his principal inquiry (1943*b*) the mean intelligence quotient of his institution children was 72.4, which was much lower than that of his controls, and the children were markedly deficient in ability to think abstractly; their performance in various conceptual tests was lower even than that of a number of mentally defective children. There was therefore a possibility that the sanatorium children might have been affected in the same way. However, no difference of significance was found in this respect between the two groups. Means and distribution of I.Q. are shown in Table 3. Although the distribution shows a tendency for more of the sanatorium children than the controls to be in the lower ranges of I.Q., tests of significance do not permit us to have confidence in the result.

The fact that the controls were selected from the same classes as the sanatorium children, and that in many cases these classes were organized as 'streams', would of course tend

to minimize any difference in I.Q. between the groups, and it might be a mistake to assume too quickly that the trend present in Table 3 is of no consequence. However, the absolute level of I.Q. in the sanatorium group is not influenced by this defect of sampling and it is notable that it is *above average*.

Although these findings are similar to those of Bowlby (1944) who in his study of affectionless thieves found a mean I.Q. of 108, they are in sharp contrast to those of Goldfarb (1943*b*). The difference may well reflect the fact that the sanatorium children, like Bowlby's thieves, had had a less severe experience. If this different level of I.Q. between groups of children with different deprivation experiences is confirmed in future investigations, it will be clear that the severe intellectual deterioration of the kind described by Goldfarb only occurs when children are subjected to privations characterized by one or perhaps a combination of the three features present in Goldfarb's sample—deprivation which is complete, prolonged and starts very early in life.

Although in the present investigation there was no evidence that level of I.Q. was related to length of deprivation, there was evidence suggestive that the age at which it starts is of consequence. Table 4 shows the mean I.Q.'s and distribution of cases obtained when the sanatorium children are divided into two subsamples—those who had been under two years of age on admission to hospital and those who had been over two.

As regards means it will be seen, first, that the mean of the children entering hospital before their second birthdays is lower than that for those entering after but not significantly so, and, secondly, that the mean I.Q. of the younger group is a little over 100. On the other hand, the distribution of cases is significantly different, more of the children who entered hospital younger falling into the lower ranges of intelligence. This finding suggests that without further evidence it would be unwise to be too confident that experiences of the kind undergone by the children reported on here are without effect on later intelligence.

Table 3. Means and distribution of I.Q.'s of thirty-six sanatorium children and their controls

Sample	Means	Distribution									Total
		70+	80+	90+	100+	110+	120+	130+	140+	150+	
Sanatorium	107 ± 22.8	3	4	7	6	5	7	4	0	0	36
Control	110 ± 16.8	2	12	13	31	22	15	8	2	3	108

$\chi^2 = 2.56$ for one degree of freedom; P lies between 0.20 and 0.10.

Table 4. Means and distribution of I.Q.'s of fifty-six sanatorium children in relation to age of entry to hospital*

Age of entry	Means	Distribution									Total
		70+	80+	90+	100+	110+	120+	130+	140+	150+	
2 years and under	102 ± 17.6	2	6	7	5	2	2	3	0	0	27
Over 2 years	110 ± 15.7	2	2	4	4	9	6	2	0	0	29

$\chi^2 = 7.08$ for one degree of freedom; P is less than 0.01.

* In constructing Table 4 age is taken as the age at which the child first entered a hospital or institution for a stay lasting longer than four weeks. In most cases, though not quite all, this was either the sanatorium itself or a hospital to which they went immediately prior to transfer to the sanatorium. All sanatorium children excepting four for whom relevant data are lacking are used in this comparison.

Comparisons of behaviour in test situation

In the same study Goldfarb (1943*b*) had found that severely institutionalized children showed in a test situation little capacity for sustained effort, a tendency to undertake only what was easy, a tendency to falter quickly under difficulty and marked passivity. Although in this investigation the primary purpose of the intelligence testing was to see whether the sanatorium children showed any intellectual retardation, a glance through the psychologists' reports of behaviour in the test situation suggested that there were differences between the two groups of the kind described by Goldfarb. To test this a classification of the children into four groups was made:

Group P comprised those children who were reported to show keen interest or enjoyment in the test situation.

Group Q comprised children who responded satisfactorily to the test situation, but there was no report of special enjoyment, of dependence on the examiner or of special desire to please. This proved to be rather a miscellaneous group.

Group R consisted of children whose ability to respond seemed particularly dependent on the relationship with the tester, manifested by an over-anxiety to please or by a particular need for encouragement and praise.

Group S comprised those children who failed to respond in the situation. In most cases a lack of 'rapport' was reported, accompanied either by nervousness, inhibition and overt anxiety, or by indifference, lack of warmth and application.

The classification of reports was made by two clinical psychologists who were ignorant of the sample to which the child belonged; they made their judgements first independently and then in conference. A fairly high degree of agreement was reached independently and the remaining differences were resolved in conference. Results are given in Table 5.

It will be seen that only half the sanatorium children were able to respond adequately to the test situation (groups P and Q) in comparison

Table 5. *Comparison between thirty-one sanatorium children and their controls in respect of behaviour in test situation*

Sample	Test behaviour group				Total
	P	Q	R	S	
Sanatorium	10	6	3	12	31
Control	29	38	7	19	93

$\chi^2 = 4.40$ for one degree of freedom ($P+Q$ vs. $R+S$); P lies between 0.05 and 0.02.

with nearly three-quarters of the controls. Of the remaining half, a few required special encouragement before they took part (group R), but most were unable to respond even with encouragement (group S). When those showing adequate response (P and Q) and those showing inadequate response (R and S) are grouped together, the difference in distribution of children in the two samples is significant statistically. This finding that more of the sanatorium children than the controls are unable to respond satisfactorily in the test situation is in conformity with Goldfarb's findings and suggests that the sanatorium children have been affected by their separation experience. Unfortunately the form of the two sets of data makes it impossible strictly to compare Goldfarb's findings with those presented here and so to determine whether or not the expectation is borne out that the children in Goldfarb's sample are the more impaired.

Comparisons using teacher's report forms

Before comparisons were made, each statement on the teacher's report form was evaluated on a three point scale—plus for a statement which seemed to indicate favourable adjustment, minus for a statement indicating unfavourable adjustment and zero for one which gives no clear evidence of either. This evaluation was made by an experienced clinical psychologist in consultation with colleagues, none of whom knew how the teachers had completed the forms.

The first step in the analysis was to compare, in respect of each item on the report form, the

full sample of fifty-seven sanatorium children with their controls. When this was done, using the χ^2 technique, although virtually all the differences found were adverse to the sanatorium group, none reached a level of statistical significance. The question thus arose whether there were in fact no differences of consequence in the school behaviour of the two groups of children or whether the methods used for assessing it were too crude to bring to light such differences as existed. The latter possibility was not unlikely, since apart from the report form being a very rough and ready instrument it was known that, thanks to inadequate briefing and other causes, some of the teachers had rendered reports the reliability of which was particularly suspect. It was therefore decided to scrutinize each quartet of reports (one sanatorium child and three controls) and to place them into two categories—quartets of reports more likely to be reliable and quartets of reports less likely to be reliable; those in the latter category were discarded. This resulted either in the elimination from the sample of the sanatorium child in question together with his controls, or, where a second teacher had reported on the same sanatorium child with a set of properly selected controls, in using the reports of this second teacher.

In deciding into which category a teacher's reports were to be placed, the following criteria of unreliability were used:

(a) Inconsistency in the checking of items in the teacher's report form, e.g. checking item 2, 'He makes friends very easily with other children', and item 17, 'He does not make any friends at all'.

(b) Inconsistency between the items checked and the description of the child given by the teacher at the end of his report; for example, if the teacher checked a variety of items suggesting maladjustment and then described the child as 'perfectly normal in every way'.

(c) Inconsistency between the teacher's report as a whole and points later brought out about the child in discussion with the research worker and recorded in the report of the

school visit. For example, one teacher expressed concern about the behaviour of a child, including a strong suspicion of pilfering, although his written report gave no indication of any difficulties.

(d) Strong suspicion that the teacher had mistrusted the research and had 'covered up' difficulties in his report, this judgement having been made by the psychologist after discussion with the teacher and recorded in the report of the school visit.

(e) Lack of discrimination in the reports of the four children rated by the same teacher; namely, where all or nearly all items were checked identically for all four children, the items in question usually being those which indicated good adjustment.

The teacher's reports and the reports of school visits were studied by the two research psychologists working independently, and teachers were eliminated as unreliable only when there was agreement between their independent judgements that one of the above criteria had been met. The outcome was that the reports on twenty-five sanatorium children and their controls were judged unreliable and those on thirty-two sanatorium children and their controls judged reliable.

When comparisons were made between the two groups of children on whom the reliable reports had been rendered, a clear difference was found. Altogether there are twenty-eight items on the report form in which differences might be found—twenty items in Part I (item 1 being excluded, having been designed as a 'buffer' not relevant to the issue under investigation) and eight items in Part II. On eleven of these twenty-eight items a larger proportion of sanatorium children than of the controls was given a marking indicating maladjustment. In the remaining seventeen items differences between the two groups were negligible, though a majority of such slight trends as there were suggested that the sanatorium children were less well adjusted. In Table 6 the eleven items which give a reasonably clear trend, in all cases showing the sanatorium group to be less well adjusted, are arranged, together with

the values of χ^2 and P . In calculating the χ^2 , statements evaluated as plus and zero have been considered together and contrasted with those evaluated as minus. (For evaluations see the Appendix where the raw figures are also given.) Although only the first five of these items show a difference which is statistically significant, the consistency with which all the trends are adverse to the sanatorium group is striking.

Table 6. *Items on teachers' report form which differentiate the two groups; all show sanatorium children to be less well adjusted than control children (reliable reports only)*

Item	χ^2	P lies between
27	8.78	0.01 and 0.001
14	6.08	0.02 and 0.01
11	5.83	0.02 and 0.01
8	4.71	0.05 and 0.02
9	4.09	0.05 and 0.02
2	3.02	0.10 and 0.05
25	2.47*	0.20 and 0.10
6	2.30	0.20 and 0.10
26	1.95	0.20 and 0.10
23	1.53	0.20
10	1.28	0.30 and 0.20

* Indicates that Yates's correction has been used in calculating χ^2 .

A comparison between the individual children in the two samples can be made by using as a criterion these five significant items. In constructing Table 7, each child has been scored for the presence in his report of the statements which indicate maladjustment which occur within these items. Thus the maximal score of 5 indicates that that child was reported upon adversely in respect of all five items. Of the sanatorium children twelve, or more than one-third, are reported upon adversely for four or more of these items, against only five of the three times larger control group. The likelihood that the differences shown in the table are due to chance is less than one in a thousand. This difference remains significant when all cases, reliable and

Table 7. *Comparison between sanatorium and control children in respect of five items on report form which show statistically significant differences between samples (reliable reports only)*

Sample	No. of items shown						Total
	0	1	2	3	4	5	
Sanatorium	8	4	5	3	10	2	32
Control	40	21	16	14	3	2	96

$\chi^2 = 22.17$ for four degrees of freedom (4 and 5 pooled); P is less than 0.001.

unreliable, are considered together ($\chi^2 = 13.22$ for four degrees of freedom; P is at 0.01), although when those cases on which only unreliable reports are available are considered alone no differences between the two groups are apparent. In addition to pointing to a difference between the sanatorium and control children the figures in Table 7 suggest a relatively high incidence of maladjustment amongst the sanatorium children—a conclusion confirmed when data from other sources are considered (see next section).

So far we have been concerned only with the presence or absence of maladjustment, not with the nature of the unfavourable responses shown. When this is examined by noting the particular responses which differentiate the sanatorium children from the controls it is found that they are, with the one exception of undue roughness, those of withdrawal and apathy. Table 8 gives particulars of the five items from Table 6 which show a significant difference between the two groups, together with the number of sanatorium children and controls who are reported as exhibiting each response. It should be noted that, although the description 'day-dreaming' was used in the report form, this is really a colloquial way for the teacher to report withdrawal of attention; it does not refer to the child's phantasy life. In the discussion, therefore, day-dreaming is placed in quotation marks.

The examination of Table 8 makes it clear that there is a tendency for the sanatorium

Table 8. *Items on report form which show statistically significant differences between sanatorium and control groups*

Item	No. of children	
	Sanatorium	Control
27 'Day-dreaming'	13	15
14 He does not seem to know what to do unless he is told	10	12
11 His attention wanders rather frequently	18	31
8* { He seems diffident about competing with other children	7	8
{ He does not seem to care how he compares with other children	7	12
9* He is liable to get unduly rough during playtime	7	7
	32	96

* Question 8 contains three items evaluated minus. Of these, one, 'He is very competitive with other children', proves not to discriminate between the two samples. Similarly, of the two items evaluated minus in question 9, one, 'He seems a bit frightened of rough and tumbles', also proves not to discriminate. They have, therefore, both been omitted from Table 8.

children to exhibit the syndrome of 'day-dreaming', diffidence and a lack of initiative and concentration. It will be noted that these are the characteristics which emerged from the independent findings of the psychologists whilst testing the children and also which Goldfarb found in his investigations. He sums up the personalities of his institution children as 'meagre and undifferentiated, passive and apathetic' (Goldfarb, 1949). In the second of his inquiries (Goldfarb, 1943*b*) no fewer than ten of his fifteen institution children showed poor concentration and all of them showed poor school achievement—characteristics which were almost absent from his control group.

The remaining characteristic in which the sanatorium children differ significantly from the controls is that a higher proportion of them are reported to get unduly rough with other children (see Table 8). In addition, they are reported as apt to lose their tempers more frequently than do the controls. This finding, which approaches statistical significance, has not been commented on hitherto because loss of temper was not evaluated as indicating

maladjustment.* If, however, we disregard these evaluations, and consider which children are apt to lose their tempers and which not, it is found that nearly half the sanatorium children do so in comparison with only a quarter of the controls ($\chi^2=3.68$ for one degree of freedom; P is at 0.06). It seems fairly certain therefore that in the school setting a larger proportion of the sanatorium children than the controls is prone to roughness and temper. As will be described in Part IV the parents of a number of them also complained that their children had violent tempers, using such words to describe them as 'terrible', 'terrific' and 'wicked'. Goldfarb (1943*a, b*) also found violence and hostility to characterize his institution children; a comparison of the incidences of these characteristics in the sanatorium sample and Goldfarb's samples follows later.

The data regarding the comparative incidence of delinquency in the sanatorium and control groups are inconclusive. Of the children on whom reliable reports are available no sanatorium child is said to truant whilst four controls do. On the other hand, one

* In item 19 of the report form the statement 'I have never seen him lose his temper with other children' was evaluated zero, whilst 'He loses his temper with them now and again' was evaluated plus on the grounds that a normal child should be able to express his aggression.

sanatorium child is said to pilfer while no controls do. There is reason to believe that these items were not checked accurately in all cases by the teachers, and in some cases such information may have been suppressed; as previously mentioned, at least one child was said to pilfer who did not have this item checked on his form. It also transpired later when information from home was available that several of the sanatorium children truanted.

Interrelation of data from teachers and psychologists

The comparisons between the sanatorium and control children, on the basis of the data independently obtained from psychologists and teachers, have thus shown certain differences of the kinds expected between the two groups. As we have seen, however, there are a number of deficiencies in both sets of data: it is therefore of some importance that there is a positive and significant correlation to be found between them. Not only do both sets of data point to a similar type of deviation from the norm, but there is a clear tendency for the same children to be picked upon as showing the deviation; those who are assessed as failing to respond adequately in the test situation are in most cases the same children as those reported by the teachers to show such characteristics as attention-wandering and 'day-dreaming'.

This is shown in Table 9. Tables were first prepared showing the relation of the children's behaviour in the test situation to the entries on the teacher's report form in respect of each of four relevant items: diffidence and apathy in competing, attention wandering, not knowing

what to do unless told, and 'day-dreaming'. The sample used comprised all the available children, sanatorium and control groups combined ($N=76$). Contingency coefficients and tests of significance of agreement were then calculated and are presented in the table. (In each comparison children placed in groups P and Q in regard to behaviour in the test situation and those placed in groups R and S were combined.) The fact that teachers and psychologists, working independently, have tended to single out the same children as having certain difficulties strengthens our confidence in the validity of both sets of data and in the results of the comparisons for which they have been used.

Discussion

The analysis of the data thus makes it reasonably certain that there is a difference in personality functioning of the children in the two groups. Though these differences are not large, it must be remembered that the instruments used were crude and also that the control group was not a group of children selected for never having been separated, but a group of class-mates, matched for age and sex, and random in regard to separation. It is likely therefore that certain members of the control group had experienced separation, and it is at least possible that certain of the rather numerous control children reported to be emotionally disturbed had been affected by separation experiences. It is therefore not unlikely that, had more sensitive instruments been used and had the control group excluded all children who had been separated, a greater difference between the two groups would have been found.

Table 9. *Interrelation of items on teacher's report form and behaviour in test situation*

Item on teacher's report form	Contingency coefficient	χ^2	<i>P</i> lies between
Diffidence or apathy in competing	0.20	3.32	0.10 and 0.05
Attention wandering	0.27	5.77	0.02 and 0.01
Not knowing what to do unless told	0.27	5.97	0.02 and 0.01
'Day-dreaming'	0.34	9.98	0.01 and 0.001

Even so it does not follow that either the differences which were found or any larger differences which might have been found by improved techniques are necessarily due to the sanatorium children having experienced separation. Not only had these children been ill and confined in cots for many months but in many cases their parents had been ill with tuberculosis, some had died and there was much disruption and anxiety in the families. It cannot be doubted that many of the children were disturbed by these other experiences, and therefore that part of the emotional disturbance found in them is to be attributed to factors other than separation. Unfortunately, as already remarked, it is one of the inherent defects of the follow-up method that in any one investigation there is no means of knowing precisely to what antecedents the differences found between groups are to be attributed (Ainsworth & Bowlby, 1954), and this inevitably applies to the present investigation. In this case, in addition to the numerous studies pointing to this direction, the main grounds for attributing part of the differences found to separation are that these differences are similar in nature to those found by Goldfarb, despite his sample of separated children having had, apart from separation, other experiences of a kind quite different from those of the sanatorium children—they were in an institution not a hospital, they were healthy not sick, they were in reasonably good foster-homes not families disturbed by illness. The common experience of the two groups was that of having suffered a major disruption in their relations with a mother-figure in their early years, and it is largely on these grounds that it is concluded that part at least of the personality disturbances from which both groups suffered were due to this common experience. Each investigation has shown that in comparison to control groups separated children are (i) less able to respond to a test situation, (ii) more given to 'day-dreaming' and lack of concentration and (iii) more given to roughness and hostility.

It will be recalled, however, that, though

similarities between the separated children in the two inquiries were anticipated, differences were also expected. On the one hand the sanatorium children were expected, like Bowlby's affectionless thieves, to be less intellectually retarded and less impoverished in personality than the children in Goldfarb's samples, on the other it was thought that they might be more given to ambivalent and anti-social behaviour. The expectation in regard to intellectual functioning is, of course, borne out. That in regard to personality is more difficult to assess, since, owing to different methods having been used in the investigations, strict comparisons between the two samples are impossible. The more detailed qualitative data obtained from interviews with parents, and which are reported more fully in Part IV, make it certain, however, that a larger proportion of Goldfarb's than of the sanatorium children were damaged to a point where libidinal relations were virtually impossible for them. Thus thirteen of the fifteen institution children in Goldfarb's main inquiry (Goldfarb, 1943*b*) were described by case-workers who knew them well as 'removed, withdrawn and cold', whereas only a few of the sanatorium children could be so described—perhaps six in all. Of the remainder about one-quarter are characterized by an excessive demand for their mothers' affection and approval and another quarter by attitudes to their mothers of ambivalence and hostility, conditions which are much less serious than that of total withdrawal. These differences are thus in keeping with expectations.

Where previous expectations seem to have proved most wrong is in respect of the sanatorium children's capacity to make friends. Not only is no disability in this respect reported by teachers, but, more important because probably more reliable, at least half are reported by their parents to mix reasonably well and to make friends readily—a finding which is the obverse of the fact that very few are delinquent. It is only a minority whose capacity for friendship is reported as seriously impaired; about a dozen are said by their parents not to make

friends, some others have quarrelsome friendships, and one or two are stated to be friends only with other rough children. The validity of these favourable reports, however, is difficult to assess. In certain cases, it is well known, a basic and serious disability in making discriminating object relationships is masked by a superficial camaraderie; thus some 'good-mixers' are found in reality to make nothing but casual and indiscriminating relationships. It is at least possible that some of the sanatorium children reported as making friends readily fall into this category. This suspicion is supported by the finding that of seven other children who were in the same sanatorium in their early years and who have subsequently been followed up in far greater detail and with the use of projective techniques, only two are able to make friends reasonably well; two others make friends only with younger children whom they dominate; and the remaining three make a variety of casual and indiscriminating relationships. In a matter of such importance and of such complexity it will be unwise to rely on the findings of any but the most careful inquiries, a category into which the present project does not fall. Meanwhile it must be noted that, so far as they go, the findings of the present inquiry cast much doubt on the conclusion which had been drawn from some of the early studies that *most* children who have experienced a prolonged separation are unable to make friends. Such doubts have already been expressed by Beres & Obers (1949) and have been emphasized more recently by Lewis (1954).

RANGE OF PERSONALITIES OF THE SANATORIUM CHILDREN

Nature of data

In order to obtain a better picture of the degree of adjustment and of the range of personality patterns of these school children, who in their early childhood had experienced separation, the data obtained from the sources already discussed was greatly augmented by data obtained from home interviews carried

out by a psychiatric social worker. Full information was sought from the parents on the present personalities and behaviour of the children, as well as historical facts about their past experiences and family backgrounds. The assessment of the children was therefore made on the basis of data from three independent sources: (a) teacher's reports, (b) psychologists' reports, (c) interviews with parents.

Although information on social background obtainable from the chest clinics proved of only limited use, liaison with the clinics provided a valuable basis for arranging the interviews with the parents. Permission was obtained to mention in the introductory letter asking for an interview that both the sanatorium and the local chest clinics were co-operating in the research. This introductory letter further stated briefly the aim of the research, stressing that it was hoped a study of this kind would help towards a better understanding of young children who would have to go into hospital in the future. Where suitable it was further stated that an opportunity to see both father and mother would be welcomed, and evening appointments were offered. In a number of cases no reply was received to the first letter. If a second letter still did not produce a reply, the P.S.W. wrote stating that she would be in the neighbourhood on a certain date and unless she heard that a visit at that time was inconvenient she would call to discuss the research. It was found that the lack of reply had no relation to the parents' subsequent willingness to co-operate, just as a prompt reply did not always indicate any real willingness to give full information about the child. In general, however, the P.S.W. was encouraged by the ready willingness to talk that she encountered in most families. It is felt that this is largely a tribute to the sanatorium which most parents remembered with gratitude.

At the beginning of the first interview the P.S.W. again took care to explain the general aims of the research as clearly and simply as possible, though she naturally gave no indication of the underlying hypothesis. She stressed the interest in the subsequent development of

children who had been in hospital when they were small, in their progress at school and at home. Some parents, in spite of the preliminary explanation, held fast to their belief that we were following up their child on behalf of the sanatorium and expressed their appreciation of the fact that the sanatorium was still interested in their child. In some cases, on the contrary, the parents sensed the underlying hypothesis of the research and that there might be a link between any present disturbance and the separation experience. Some of these parents reacted by overstressing either the good behaviour of their child or the fact that hospitalization could have nothing to do with his difficulties, whereas others proceeded to blame the hospitalization for all later troubles.

Only very few families refused altogether to co-operate after the purpose of the research had been discussed. Of the fifty-eight families, only two, involving three children, refused altogether to co-operate; in one case the mother was separated from the father and living with another man; in the other the father had died and the mother was remarried, and it was the stepfather who did not want the mother to co-operate in the research. In two other cases the parents did not want to give histories but invited the field-worker to stay for a cup of tea during which time enough information was obtained to enable her to obtain some picture of the child's present behaviour and characteristics. In these two cases also there were family disturbances: in one family the mother had apparently deserted the father and the children, and in the other the parents were divorced and the mother remarried.

The average number of visits made in order to obtain a history was two. In some cases the parents were seen only once, for instance, where both parents were working and it was difficult to arrange a time for the interview and in cases where the parents were not very co-operative. In others the informants were seen three or even four times. The average length of interviewing time taken to obtain a picture of the child and his history was four to five hours.

Naturally, the material was more complete in some cases than in others, and sometimes the mother was suspected of giving a biased or unreliable account, either glossing over difficulties or exaggerating them. The P.S.W. attempted to assess the reliance which could be placed on the data on the basis of her impression of the informant, on the consistency of information and on her own observations of the home situation.

These data on the personalities of the children were used in two ways: first, to make an estimate of the children in terms of the degree of psychological disturbance which each appears to be showing and, secondly, to classify them into patterns of personality organization.

Degree of adjustment and maladjustment

Three ratings of adjustment were given to each child, each based on data from a different source:

(i) *A school rating* based on the information supplied (a) by the teacher, both in the report form and in personal interview, and (b) by the psychologist in his report. (It should be noted that this rating is in no sense a teacher's rating of the child.)

(ii) *A home rating* based on the information obtained through the interviews with the parents.

(iii) *A final rating* based on the total data available on each child.

These ratings were made by the two research psychologists and the P.S.W. who had interviewed the parents. In assessing the adjustment of each child, attention was paid to the quality of relationships made, particularly those with the mother, father and siblings; the child's interests and activities were considered, together with his progress at school and the relationship of progress to I.Q.; finally, anxieties, symptoms and personality difficulties were noted. To make the assessment of maladjustment as realistic as possible for the three clinically oriented judges a treat-

ment criterion was used: in cases where difficulties were apparent, the significance of these was assessed in terms of the advisability of child guidance treatment and the likelihood of benefit from it.

All the ratings were made on the same five-point scale, the criteria for which are as follows:

1. Child clearly well adjusted. Relationships very satisfactory both at home and outside, and school progress adequate. No evidence of symptoms or personality difficulties. Likely to develop satisfactorily in the future.

2. Child well adjusted on the whole. Relationships satisfactory and school progress adequate. No obvious symptoms or personality difficulties. A satisfactory future development is anticipated though with less confidence than with rating 1.

3. Some obvious problems present, but these are not judged to be severe enough to warrant treatment, nor to interfere markedly with the child's general adjustment. Likelihood that the child will make a tolerably satisfactory adjustment without danger of breakdown, and will cope with his difficulties adequately.

4. Problems present, either difficulties in relationships or symptoms, or usually both, which are severe enough to make treatment advisable. The child should be referred to a child guidance clinic. Without adequate treatment, considerable handicap in the future must be expected.

5. Severely maladjusted, falling into two categories: (a) those children whose difficulties and symptoms, although severe, are likely to be alleviated to some extent by suitable treatment, and (c) those children with severe per-

sonality impairment which is thought to be relatively irreversible and not likely to benefit greatly from treatment.

These ratings of adjustment were made by three judges, each of whom independently assessed the three sets of data on each child and gave her own school, home and final ratings. The three judges then met, and, in conference, arrived at agreed ratings for each child. Thus each child was given three agreed ratings of adjustment: school rating, home rating and final rating. The distribution of these ratings is shown in Table 10. The degree of corre-

Table 10. *Distribution of school, home and final ratings of adjustment*

Type of rating	Degree of adjustment					Totals*
	1	2	3	4	5	
School	1	12	15	20	8	56
Home	2	8	23	17	7	57
Final	0	8	13	28	8	57

* Three cases were excluded because histories from the parents were unobtainable, and one further case was not given a school rating because the school information was too scanty.

spondence between school, home and final ratings is shown in Table 11.

These statistics indicate that the relationship between school and home ratings is not great. Although a complete correspondence between them is not to be expected as it is well known that behaviour at home differs in many cases from that at school, the degree of agreement is unexpectedly low. Examination shows that much of the lack of agreement is due to dis-

Table 11. *Correspondence between school, home and final ratings*

Ratings	Percentage agreement	Contingency coefficient	χ^2	P
School and home	34	0.15	1.16	Between 0.30 and 0.20
School and final	50	0.51	19.90	Less than 0.001
Home and final	74	0.55	25.01	Less than 0.001

crepancies between ratings 3 and 4. The table also shows that in arriving at the final rating rather greater weight was given to home than to school data. In the case of the final ratings the distribution is skewed more to the maladjusted end than are the distributions for either the school or the home ratings; this probably reflects a tendency to lower ratings as additional evidence is taken into account.

It will be noted that, when the total data for each child were taken into account, the majority of the sanatorium children, namely, thirty-six out of fifty-seven or 63 %, were judged to be maladjusted. In considering the meaning of these figures it has to be remembered first that, as clinicians, the assessors set a far more rigorous standard of adjustment than would the layman and, secondly, that in investigations of the general population other clinicians have found a high incidence of psychiatric illness and disability (e.g. Russell Fraser, 1947; Logan & Goldberg, 1953). Even so, the proportion of sanatorium children assessed as maladjusted is high.

A particularly relevant comparison is between the distribution of ratings shown by the sanatorium children and those shown by a cross-section of eight-year-old schoolboys rated on the same scale by clinical assessors using similar data. This was part of an unpublished inquiry undertaken at the Tavistock Clinic in 1948, which sought to investigate all the eight-year-old boys in an elementary school of outer London. Of a total group of forty boys, the parents of thirty-three co-operated. The distribution for the five ratings from best to worst adjusted were: 5, 7, 7, 9, 5, total 33. Thus no less than fourteen of this group of thirty-three ordinary schoolboys were regarded as fairly seriously maladjusted (ratings 4 and 5) and only twelve as well adjusted (ratings 1 and 2). Even so, the distribution of these children between the five ratings is fairly even and contrasts with the distribution of the sanatorium children which is heavily skewed to the maladjusted end of the scale. When this difference is tested statistically it is found to be significant ($\chi^2 = 6.40$ for two

degrees of freedom; P lies between 0.02 and 0.01). On the other hand it seems probable that had Goldfarb's institutionalized children been rated on this scale their distribution would have been skewed even further to the maladjusted end: of the fifteen children discussed in Goldfarb's main inquiry (Goldfarb, 1943*b*), nine were said to present severe problems, five mild problems and only one was of 'normal general adjustment'; thirteen of them were stated by case workers to be 'removed, withdrawn and cold'. The distribution of ratings in the case of the sanatorium children therefore seems to lie between that of a cross-section of the school population and that of a severely institutionalized group. Nevertheless, whilst noting the tendency for many institutionalized and hospitalized children to show serious maladjustment, the existence of others who come through these experiences apparently unscathed must not be overlooked. Even in Goldfarb's sample one child was judged to be of normal general adjustment, whilst no less than eight of the fifty-seven sanatorium children (14 %) were judged by rigorous standards to be fairly well adjusted.

This finding is in conformity with that of Beres & Obers (1950), the results of whose investigation were published after the present inquiry had begun, and who drew more optimistic conclusions than their predecessors in regard to the development of children who have experienced separation and deprivation in early childhood. They base their conclusions on a follow-up of thirty-eight adolescents and young adults who had spent a prolonged period of early childhood in the same institution as that from which the cases of Goldfarb had been drawn. Whereas Goldfarb had, quite legitimately, emphasized the similarities between the cases, Beres & Obers stress the differences in the clinical pictures. A majority of their cases were disturbed—twenty-eight of the thirty-eight showing signs of 'serious weakness in ego-structure' and three others being mentally retarded—which confirms the general hypothesis regarding the pathogenic effects of these early experiences. On the other

hand, they found several cases in which marked increases in I.Q. had taken place in later childhood and seven cases in which the adjustment at the time of follow-up was deemed to be satisfactory. Their case material suggested to them that some individuals with a history of institutionalization are able later to develop a close and stable relationship with an adult person whether it be foster-parent, case-worker or therapist. Since their sample was biased in favour of cases presenting problems, there is little doubt that had they studied a representative sample they would have found more cases which had developed reasonably favourably. Lewis (1954) emphasized the same point after completing her analysis of the psychiatric findings on 500 children admitted to a reception centre, 204 of whom had experienced separation from their mothers, either permanently or temporarily (over three months), before the age of five years. The separated children are shown to be significantly more disturbed than the 296 children who had not been separated ($\chi^2 = 14.15$ for two degrees of freedom; P is less than 0.001), despite most of the non-separated children having come from extremely disturbed home backgrounds. Nevertheless, 16 % of the separated children 'did not show abnormal behaviour in their childhood', even though some had been brought up in public institutions; this is a percentage almost identical with that shown in the present inquiry. After giving a number of examples of children who had come through their experiences apparently unscathed she calls attention to 'the need to qualify any general indictment of institutional upbringing'.

The results of the present investigation, therefore, taken with those of Goldfarb, of Beres & Obers and of Lewis, make it plain that development following separation and deprivation in early life, whilst very adversely affecting some individuals, affects a minority much less severely. In taking note of this, however, we must be on our guard against making the assumption that all these individuals are wholly unaffected by the experience. It is possible that this is so, but it is equally

possible that some have suffered damage which in the circumstances of examination is not revealed. Such hidden conditions are a commonplace of medicine. They represent one phase in a continuum from damage which is lethal through that which is manifestly crippling to that which is wholly repaired. It is therefore almost certain that, if deprivation causes psychological damage which is manifest in some cases, it will cause damage which is concealed in others. With our present crude equipment for the clinical examination of such cases it is impossible even to guess at the incidence of such concealed damage or whether the cases reported in this and other inquiries as apparently unharmed are in fact so or not. Only research carried out with far more refined methods of investigation than have yet been employed will be capable of answering such questions. Meanwhile we are presented with the fact that outcome unquestionably varies greatly from case to case, which is itself an important conclusion, and one which poses the problem of why outcomes vary in this way. The answer may lie in the diverse ways different individuals respond to similar experiences or, on the other hand, to the experiences undergone by different individuals being different in significant ways, which is very often the case, or to a combination of both factors.

An attempt was made to use the data of the present inquiry to determine whether and to what extent differences in the experiences of individuals might account for the varying outcomes. Elsewhere (Ainsworth & Bowlby, 1954) we have listed some of the very numerous antecedent conditions which are likely to affect outcome, distinguishing between those operative before, during and after the separation experience, and also between those which are intrinsic to the experience, such as age, length of separation, and quality of mother-child relationship, and those which are commonly associated with a separation experience, such as illness and being confined in a cot, both of which occurred in the sanatorium sample. The results of the analysis of data from the present inquiry were inconclusive. Of the many

correlations between antecedent conditions and degree of maladjustment which were calculated, the highest were in regard to the length of separation, the number of separations and the relationships the child was judged to have with his mother and father. However, although these and other correlations were all in the expected direction, none reached a level of statistical significance. These inconclusive results are perhaps not surprising when it is remembered that this study was not originally designed to permit of a systematic and controlled exploration of the relevant antecedent conditions, that these conditions are not independent of each other and that the data are inadequate in many respects. In our previous paper we have discussed the many shortcomings for the elucidation of the problem of differential outcome inherent in data obtained retrospectively, as they have been in this and other follow-ups, and have concluded that systematic observation of the child's responses to the experiences as and when they are occurring is the research strategy most likely to prove fruitful for this purpose.

Patterns of personality

Whilst the ratings of adjustment are concerned with *degree* of psychological disturbance believed present, the classification into personality patterns is concerned with the *form* of personality organization shown by the children. Although no *a priori* classification was adopted and the judges proceeded empirically in their construction of a system, in making it there was agreement that particular attention would be paid to the way the child organized his object relations.

In arriving at the classification three steps were taken. The first, taken whilst the data on each child were being reviewed for purposes of rating his adjustment, was to collect all material on the personality of each child into a personality summary. The second was for each of the three judges independently to sort the personality summaries into whatever groups she thought most appropriate, and the third

for the three judges to compare their groupings and to agree on a basis for classification. At this conference it was noted that most of the children had been grouped together similarly, even though the definitions and boundaries of the groups differed from one judge to another. Working from these groups it was therefore not difficult to agree on a classification; this comprised seven patterns as follows:

Group A. *Conforming*: children who, through good behaviour or achievement or both, are socially acceptable. Some but not all seem unduly concerned with winning the approval of adults by means of this behaviour.

Group B. *Over-dependent*: children who are more dependent on the mother than is normal for their age, showing it by clinging to her or demanding reassurance of her affection and approval. These are divided into two sub-groups: (i) those who do not express hostility, (ii) those who express some measure of hostility to other people, including the mother.

Group C. *Withdrawn and over-dependent*: children who are not only extremely over-dependent in all their relationships but are also unable to mix satisfactorily with other children.

Group D. *Ambivalent*: children who show evidence of both affectionate and strongly hostile feelings towards their mothers and others, and who are not over-dependent.

Group E. *Mother-rejecting*: children who show both a pronounced lack of dependence on the mother and some hostility towards her, with preference for other members of the family.

Group F. *Affectionless*: children who show no apparent dependence on nor affection for the mother and whose relations with other figures are also severely disturbed.

Group G. *Superficial*: children in whom there is little evidence of overt disturbance or difficulty, but whose relationships are suspected to be lacking in warmth and depth though at first glance they may seem satisfactory.

The classification being agreed, the judges independently regrouped the children, assigning each to whichever personality pattern

seemed to be dominant; finally, they met in conference to resolve differences of opinion about cases which had not been unanimously classified. As was to be expected since the groups overlapped, most of these differences were concerned with children who seemed to fall on the boundary between two groups; these were easily resolved. There were, however, six children about whom there was more serious difficulty because they did not fit clearly into any of the seven groups. It was finally decided to add an eighth, unclassified, group rather than try to force them into a group they did not really fit.

Since the criteria for classifying into personality patterns were different from those for classifying into ratings of adjustment, most of the groups contained individuals showing the whole range of ratings from well-adjusted to maladjusted. Table 12 illustrates this relationship:

and 'mother-rejecting' really applies to group F as well as to group E. Further consideration, in fact, makes it clear that there are three major classes of case. The first class, comprising groups A, B and C and numbering twenty-six, contains children all of whom showed strong positive feelings towards their mothers, the difference between the groups depending on the confidence the children had in these relationships. The second class, comprising group D and numbering twelve, contains children who were markedly ambivalent in their relationships. The third class, comprising groups E, F and G and numbering thirteen, contains children, the loving components of whose relationships were little if at all expressed whilst hostile components or indifference were openly displayed.

Some details of the groups follow:

Group A consists of eight children who were classified as *Conforming*. Both at home and at

Table 12. *Relationship between personality patterns and final ratings of adjustment*

Personality patterns	Final ratings of adjustment		Total
	1, 2 and 3	4 and 5	
A Conforming	5	3	8
B Over-dependent	5	8	13
C Withdrawn and over-dependent	0	5	5
D Ambivalent	5	7	12
E Mother-rejecting	1	4	5
F Affectionless	0	3	3
G Superficial	2	3	5
H Unclassified	3	3	6
Total	21	36	57

Although the numbers in each category are small and the differences not significant, it is to be noted that the conforming type of personality pattern contains a higher proportion of better adjusted children than do the other groups, whilst groups C and F are composed exclusively of maladjusted children.

The extent to which several of the groups in this classification overlap is shown by the difficulty in finding names for them which are mutually exclusive. Thus 'over-dependence' needed to be used in the names of two groups

school they are described as good children, obedient and amenable. They have friendly relationships with parents and others, with little evidence of hostility in any of their relationships. Whilst such a personality pattern is often compatible with mental health, it is sometimes the expression of an excessive need for gaining the approval of other people and based on deep anxiety. This is the case with some of these children. Two are doing well at school where their scholastic progress is good and where they are popular and leaders.

Although both tend to be slightly tense and over-serious, and there is a compulsive flavour about the achievement of one of them, both have made an apparently successful adjustment and were finally rated 2 on the degree of adjustment scale. The remaining six, whilst very anxious to please, are not all particularly successful in their achievements. Two of them are highly dependent on their mothers and thus show some of the characteristics of group B, whilst in others the conforming behaviour appeared to be at the expense of spontaneity and to be highly charged with anxiety. The final ratings of adjustment varied from 2 to 4.

Group B comprises thirteen children who were classified as *Over-dependent*. These children were grouped together because they were characterized by a marked need for reassurance of their mothers' love, manifested chiefly by demands for affection, attention and approval from her and sometimes expressed by a tendency to cling to her. In some cases, though not all, they are overtly affectionate towards her. They tend also to have friendly relationships with the father, where he is alive, and to other members of the family. However, while some get on well also with contemporaries, others have difficulty in mixing outside the family. They were subdivided according to whether there is absence or presence of hostility in their relationships:

(i) seven children show no hostility in their relationships to the mother, nor in their relationships to contemporaries. Some of them tend to be conforming and good, like the children in group A, but this is shown more specifically in relation to mother together with a particular need for her approval and affection. Four of these non-aggressive children are active and have satisfactory relationships outside the home—being popular at school and making good educational progress—while the other three tend to be poorly adjusted outside the home, not mixing well and getting on badly at school. The final ratings of adjustment varied from 2 to 4.

(ii) The remaining six children, although

just as dependent on the mother, tend to have outbursts of anger. Unlike the children in groups D and E, this is not specifically directed against the mother. It expresses itself more generally in the form of tempers or obstinacy at home, and being quarrelsome and bossy in relationships with other children. In spite of this, however, all but two are popular and have friends. Four show jealousy of their mother's attention to siblings. All are active without being over-active but five are backward at school. Although they show a need for their mother's approval and also that of teachers, towards whom they are helpful, they are not as conforming as the children in group A and in group B (i). No fewer than five of this subgroup were judged maladjusted and were finally rated 4—the other was rated 3.

Group C comprises five children who are described as *Withdrawn and Over-dependent*. They have been grouped together because of the very marked degree of insecurity and over-dependence which dominates the picture and which, unlike the children in group B, is generalized to include the father, where he is alive, and others. This dependence is permeated with anxiety, particularly in relation to the mother from whom continual reassurance of love is needed. There is a marked desire for physical contact, demonstrative affection and cuddling, which is extended in three cases to other members of the family and even to strangers. They are characterized by timid, non-aggressive behaviour both at home and in their relationships with other children. Two, however, show a certain amount of obstinacy towards mother. They are all diffident and isolated from their contemporaries, in two cases without any friends at all, although there is attachment to siblings. They are all poorly adjusted at school, showing many of the signs of maladjustment which distinguished the sanatorium children from the controls. They are inattentive, unable to concentrate, 'daydreamy' and incapable of independent work. They are all backward, making poor progress in relation to their intelligence quotients. In general, this is a group of passive, timid, withdrawn children;

in the case of the boys there is a suggestion of a homosexual type of adjustment. All were considered maladjusted and rated 4 or 5.

The twenty-six children in groups A, B and C all show strong positive feelings towards their mothers. Although some, mostly in group A, have a measure of confidence in their relationships and seem fairly well adjusted, others, particularly those in group C, are intensely anxious and clinging. Others again show ambivalence in their relationship and so form a transitional group to group D, which provides the second main class.

Group D is a rather miscellaneous group of twelve children with *Ambivalent* relationships. In relation to mother, they are consistently neither over-dependent nor rejecting; instead, there is evidence of a positive affectionate relationship to her, but this is accompanied by considerable hostility expressed in the form of tempers or obstinacy. The group can be subdivided into: (i) five children whose adjustment outside the home is fairly satisfactory, with good progress at school and fairly adequate, though somewhat aggressive, relationships with other children; and (ii) the remaining seven whose adjustment outside the home is poor. They are backward at school and tend either to withdraw from their age group relationships or to be spiteful and difficult. The children in this group vary considerably in degree of adjustment. More than half were considered maladjusted and were rated 4 or 5; the rest were rated 3 with the exception of one rated 2.

The thirteen children in groups E, F, and G make up the third main class of case; loving components in their relationships to their mothers are little if at all expressed, whilst hostile components or indifference are frequently prominent. Many are said to lack any feeling of attachment to their mothers and to get on well with strangers, known clinically as an ominous combination of features.

In group E there are five children (all boys) who are characterized as *Mother-rejecting*. They are described as being 'independent' of mother, not at all affectionate towards her, and

disobedient. Their relationships with father and siblings, however, are rather better. Some flare up into tempers when frustrated, others are defiant or obstinate. All are restless and over-active with evidence of aggression in either an overt or a submerged form. Their relationships with other children vary, some getting on quite well while others get on badly, but all seem unduly aggressive. Two are progressing well at school while the other three are not. The common feature of these five children is that their adjustment seems worst in relation to their mothers, suggesting serious conflict in their feeling for her, and a tendency to adopt the manic defence. Four were considered maladjusted and rated 4, the other was rated 3.

Group F contains three children who were judged to be *Affectionless*, a personality pattern which is similar to group E though feelings of affection are even more deeply repressed. They show no feeling for their mothers and all their other relationships are severely disturbed, their behaviour to other children being aggressive and bullying. Like those in group G, however, they get on easily with strangers. There is marked inability to tolerate frustration, together with serious outbursts of temper. School progress is poor. All three are suspected of pilfering and two also truant. In addition to these shared characteristics, all three have a number of individual symptoms of quite a serious kind. One, aged nine, seems paranoid and suspicious, feeling his parents are against him whenever he is reprovved. He torments his younger sister, is a bully and a bad loser, not able to keep friends for long. He is described as independent and uncommunicative and tends to fantasy. He has a passion for lighting matches, used to chew his collars and has a phobia of things being over his face. The second, aged nine, also bullies his siblings and is said to consider himself a special case. He had suffered from asthma and had soiled at school till recently. The third, aged eight, suffers from food fads and fears and is preoccupied with her own health. She is babyish for her age and inclined to excessive fantasy. All these three children were rated 5.

The five children in *Group G* are placed together because their relationships are suspected of being *Superficial*, lacking in warmth and depth. At home they are described as being 'independent of mother', and yet on good terms with her and the rest of the family. They are little trouble and with one exception obedient and easy to manage, without any evidence of hostility. Their relationships with other children are more disturbed, however. Three manifest an over-excitability, spiteful, 'show-off' pattern, while the remaining two have no particular friends. In four cases, the mothers seem to have little idea of the difficulties encountered in their children's relationships outside the home, and contrary to most other cases the picture painted by the teacher is much worse than that given by the mother. Four of them are not infrequently in difficulties with their teachers and get on badly at school. They are all active children, though not overactive. They hardly ever cry, bearing pain without complaint, and are insensitive to criticism; one of them, a girl, was described by a nurse when in hospital at the age of six as being 'tough as nails'. Three seem to enjoy the dramatic and like to have an audience. One is reported to pilfer at school and to be untruthful and another is also said to be untruthful. Like those in group F all get on easily with strangers. The final ratings of adjustment for these children varied from 2 to 5, but a characteristic in common is that all the ratings were queried, as the assessors felt a lack of confidence in the adequacy of evidence. This was linked with the feeling that the adjustment of these children was superficial and disguised much disturbance below the surface, a condition which is characteristic of many psychopathic personalities.

Group H consists of six children who were *Not Classifiable* in any of the previous seven groups, nor could they be grouped together as their personalities were dissimilar. Three were in this group because the information about them was too scanty to give an adequate personality picture; in each case the mother was dead and the information was given by

father or foster-mother. The personality pictures of the other three children were full enough, but they did not fit sufficiently well into any of the other groups. Two had patterns somewhat similar to that of children in group A but did not seem to be sufficiently conforming to be included there. The third might perhaps have been included in group D (ambivalent) but for his general 'toned-down' behaviour, which seemed to have neither a sufficient positive nor negative component to be called ambivalent. The final ratings of adjustment of these children ranged from 2 to 4.

This brief review of the fifty-seven children makes it plain that there is an extremely wide range of personality organization represented, from a couple of children in group A who were popular leaders at school to three in group F and one or two in group G who were near-delinquent. How, it may be asked, can such extraordinarily diverse outcomes all be related to the experience of separation? Though it is not our contention that all the varied features noted can be so related, it is our view that conditions as diametrically opposite to one another as extreme over-dependence and apparent absence of dependency can both be promoted by an experience of this kind. A brief account of how we conceive of this follows.

A dynamic interpretation of the personality patterns

Before attempting this interpretation it must be emphasized that none of the personality patterns described is confined to children who have experienced separation; examples of such patterns are not infrequent in the general population and are confidently believed by most child psychiatrists to be produced by causes other than separation. Thus, for example, conformity patterns are found frequently in children who for any reason have an excessive sense of guilt, whilst mother-rejecting patterns are often found in children who have themselves been rejected. Neverthe-

less, it seems useful to consider the way in which these personality patterns *may* be related to the separation experience, since it is clear that many of the forms which these children's object relations take are typical of those which immediately follow an experience of this kind. This will be evident from the following description of such responses, which is based on observations of children currently undergoing separation, some of whom have later been followed through to their homes to observe their response to their mothers and families on reunion (Robertson, 1953; Bowlby, 1953; Bowlby, 1954).

It is characteristic of young children separated from their mothers between the ages of one and four years to fret at first, either calling for their mothers if they are old enough to communicate their wishes verbally, or making it clear through their behaviour that they are in a state of distress. Nevertheless, if the mother visits the child early in the separation period he does not respond with unmitigated joy, as perhaps might be expected from the longing for the mother expressed in fretting, but instead mingles clinging with crying and with various forms of rejecting behaviour, such as turning away and pushing his mother away. Often he shows considerable resentment towards his mother, while at the same time clinging to her and being very unwilling to let her go at the end of the visit. Sometimes he makes it plain that he is angry with her for having abandoned him. Characteristically, if the separation continues long enough, he ceases fretting and becomes bright and cheerful, apparently happy and 'well-adjusted' to his new surroundings. He seems to have forgotten his parents and no longer asks for them; indeed, he may look uncomprehending if 'mummy' and 'daddy' are mentioned. Both his desire to be with his mother and his distress and resentment at having been separated from her seem to have disappeared. If his mother visits for the first time long after he has reached this state he may not recognize her; if she has been visiting at fairly regular intervals, there is no difficulty in recognition, but he is no longer upset, even

when she leaves at the end of a visit. He expresses no anger towards her nor does he cling to her; commonly he is indifferent to her, showing neither more affection towards her nor need for affection from her than he does with anyone else.

The way young children behave when they return home appears to depend in high degree on the kind of adjustment they have made during separation; those who have fretted until the end of separation behave on return differently from those who have 'settled' and become bright and cheerful. It is common for the child who has retained an orientation towards his mother and who has fretted until the end of separation to respond to reunion with a greatly increased demand for his mother; he becomes excessively attached* to her and clings to her as though she might disappear again at any moment. In contrast, the child who has become cheerful and 'settled' at the end of his separation, which seems to occur fairly frequently after a complete separation lasting many months, commonly lacks a normal attachment to his mother when he returns home and appears untroubled by her comings and goings. There is good reason to believe that this absence of attachment (or dependence) is due to a repression of his need for his mother. Although some children seem to continue indefinitely in this state of pathological detachedness, others, seemingly those who have had shorter or less traumatic separations, suddenly and after varying periods of time become excessively attached to her

* Elsewhere (Ainsworth & Bowlby, 1954) we have discussed the problem of selecting the most suitable term to describe the young child's relation to his mother and there decided in favour of the common clinical terms 'dependent' and 'dependency', both of which have been used in this paper. The disadvantage of this terminology, however, is that it may imply that the young child's relation to his mother is a secondary result of her being the provider of food, warmth, etc. Since it seems equally likely that the relationship is primary we now prefer the more neutral terms 'attached' and 'attachment'.

again.* It is on this sudden manifestation of excessive attachment and dependence after an apparent lack of attachment that the hypothesis is based that the child's need for his mother does not disappear when he 'settles in' and 'adjusts' to separation but is repressed. Such an hypothesis explains the fact that in the early reunion period children who have been separated tend to fall into one or other of two contrasting groups—those who are excessively attached and those who express no need for attachment; there is a conspicuous dearth of children with the amount of attachment normally displayed by the pre-school child. (For the discussion of the concept of repression in this context see Bowlby (1954), p. 73.)

A similar dichotomy appears with respect to hostility (although here the picture is more complex and will be simplified for the purposes of the present discussion). Probably a majority of children after having been separated are very much more aggressive than the ordinary non-separated child of equivalent age. Some focus this aggression on the mother, responding to her at the time of reunion with overt rejection, pushing her away and repulsing her affectionate advances; others express this increased hostility more diffusely, chiefly in violent temper tantrums which are easily evoked by the most minor frustrations. On the other hand, a few children after a brief phase of being fractious, obstinate and easily incited to anger become markedly non-aggressive, and a few others show a complete absence of overt aggression from the beginning. Here again there is a dichotomy, this time between greater-than-normal hostility and unusual absence of hostility. In general, the children who continue to repress their need for attachment manifest the most marked hostility, whilst those few who have an apparent absence of hostility come from the group with excessive need for attachment. It seems likely that the latter

* Length of separation appears to play a part in determining both the onset of repression and its persistence. It is clear, however, that other factors play a large part also, notably the mother's treatment of her child after his return.

experience their own hostility as a threat to the positive relation and so control or repress it.

To summarize, a study of children currently undergoing these experiences points towards two sets of responses being characteristic of the behaviour after reunion: (a) the child is likely either to manifest excessive attachment to the mother or a marked lack of attachment; (b) he is likely either to be hostile and aggressive beyond the normal for a pre-school child or to express no hostility. These responses can, of course, follow many other experiences of frustration in the child's relation with his mother, though clinical experience suggests that neither the intense clinging nor the extreme repression of the need for the mother are often found in as strong measure with other children as they are with children who have recently experienced separation.

The similarity of these responses to those which have been found to characterize many of the sanatorium children will at once be evident—the excessive dependence of many children and the unusual absence of dependence in others, the excessive aggression of certain children and the timid inability to express hostility shown by others. It is our belief that these resemblances are more than superficial and that the personality functioning of many of those sanatorium children who are found to be maladjusted is to be understood as representing in some degree a persistence into later childhood of pathological responses having their origin during and immediately following the separation experience. The hypothesis is therefore advanced that certain of these children, notably those in groups B and C who are markedly over-dependent often with an inhibition of aggression, are to be regarded as having developed the over-dependent type of response following separation and to have become in some degree fixated in it; whilst others, notably those in groups E and F who are mother-rejecting often with much aggression, are to be regarded as having repressed their need for attachment to their mother during separation and to have become relatively fixated in that response. Such an hypothesis

accounts for the paradoxical finding that the personality patterns of children who have experienced long separation tend to fall into one or other of these two opposite classes.

It can also account for the relative frequencies of these two classes of response. Since a persistent repression of the need for attachment is the extreme response to separation and is therefore less common, whilst over-dependence is less extreme and therefore more common, it is to be expected that repression of dependence will characterize fewer cases than will over-dependence. This is what has been found in this inquiry; there are roughly twice as many children showing an over-dependent type of response as those showing strong repression of dependence.

Naturally there are almost infinite individual variations within each of these typical patterns. If the hypothesis advanced here is correct these are dependent in some degree on the form the response took during and immediately after separation, which is itself dependent in some measure on the precise experience the child had whilst away. On the other hand, it is evident that all the variance cannot be due to such causes alone; at least three others almost certainly play a part: (a) inherited individual variations in responsiveness to a love object and in the capacity to tolerate frustration which, although not yet demonstrated, are likely to exist; (b) modifications in such responsiveness and capacity taking place in early life prior to separation; and (c) the experiences the child has subsequent to separation and in particular his experiences in relation to his parents. It is our belief that each of these conditions, which are independent of the experience of separation, is almost certainly playing a major part in accounting for the variance, a belief which is in no way incompatible with the hypothesis that the separation experience is playing a major part also.

CONCLUSIONS

In the comparison of the *sanatorium children* with the control group two tendencies emerged which were found significantly more frequently

in the sanatorium children—the tendencies (a) to withdraw into daydreams and to lack initiative and concentration and (b) to be rough and given to tempers. The first of these emerged from the independent report of the teachers and the psychologists; the second emerged from the reports of the teachers (the psychologists having no opportunity to observe it).

Since it is possible that these differences are due to other variations in the experiences of the children in the two samples, it cannot be firmly concluded that the greater incidence of these tendencies in the sanatorium group is due to their having experienced prolonged maternal deprivation during separation. Nevertheless, the fact that Goldfarb found both tendencies significantly more frequently in his institution children than in his controls and that there are many other studies pointing in the same direction strengthens the belief that separation is indeed a main cause of the present findings.

Although there are many similarities between the findings in the sanatorium children and in the institution children studied by Goldfarb, there are also differences. It seems probable that the overall incidence of maladjustment is higher in Goldfarb's sample than in the sanatorium one. As regards intelligence level, whereas Goldfarb found a very high incidence of intellectual retardation in his institution children, group retardations were not present though there was some evidence suggestive of a lowered I.Q. in those children who had entered hospital before their second birthday. These differences are in the direction to be expected, since the children of Goldfarb's sample had experienced privation at an earlier age and for a longer period than had any of the children of the sanatorium sample.

In certain respects, therefore, the findings are in accordance with the hypotheses originally advanced. On the other hand, the total incidence of disability in the sanatorium children is lower than had been anticipated. Although thirty-six, or 63 %, were judged to be maladjusted, there were eight, or 14 %, who

were judged by rigorous standards to be fairly well adjusted. Furthermore, of the thirty-six maladjusted children, only a minority (eight) were thought to be very severely maladjusted. In particular, more of the sanatorium children than had been expected were reported as able to make friends, and fewer appeared to show the severe disturbances in object relations which underlie persistent delinquency. Perhaps the principal value of this investigation has been to display the great heterogeneity of personality organization which is consistent with having undergone a prolonged separation experience starting before the fourth birthday. The patterns of personality found range from children who are noted for their good behaviour to those who are near-delinquent, from children who are exceedingly over-dependent on their mothers to those who show no positive feeling for their mothers and appear to have repressed all feeling of love and dependence.

In the past, certain workers, notably Bowlby Bender, Goldfarb and Spitz, have tended to underline both the similarities in the severely deprived children they have studied and the seriousness of the psychological damage for which they believe deprivation due to separation to be responsible. More recently others, notably Beres & Obers and Lewis, whilst confirming that experience of separations are often pathogenic, have emphasized the very varied clinical pictures presented by individuals who have had these experiences and the fact that a few appear to come through almost unscathed. In some of these cases, it is here argued damage of a hidden kind is probably present, although there may well be others where this is not so. Though this is a vital issue, it is one which cannot be settled without research of a far more refined character than has yet been done. Meanwhile it is clear that some of the former group of workers, including the present senior author, in their desire to call attention to dangers which can often be avoided have on occasion overstated their case. In particular, statements implying that children who are brought up in institutions

or who suffer other forms of serious privation and deprivation in early life *commonly* develop psychopathic or affectionless characters (e.g. Bowlby, 1944) are seen to be mistaken. The present investigation confirms the findings of Beres & Obers and Lewis. Outcome is immensely varied, and of those who are damaged only a small minority develop those very serious disabilities of personality which first drew attention to the pathogenic nature of the experience.

Though we may be relieved that this is so, there are no grounds for complacency. The evidence that experiences of privation and deprivation arising from separation in the early years can lead to psychopathic personality development in certain cases and in others to personalities burdened by increased libidinal craving and aggressive impulses is not controverted, even though the proportions so affected may be lower than some at first thought. The disturbances are serious and affect a far from negligible proportion of children. In so far as measures can be taken to prevent them it remains urgent they be taken.

This investigation was not planned to elucidate the factors which account for the variation in outcome, and has in fact cast no light on this aspect of the problem. Important area though this is, the history of medicine should warn us not to expect to solve its problems quickly. Even to-day, after a century of research into infectious illness, there is far from complete understanding of why the responses of different individuals to the same infective agent are commonly so varied.

Experience in undertaking this investigation has led us to reflect on the uses and limitations of the retrospective follow-up method of research in the study of mother-child separation. These have been discussed at some length in another paper (Ainsworth & Bowlby, 1954), where we have emphasized certain serious limitations of the method, especially that it is concerned with the effects of events which have taken place some years earlier and about which it is impossible to obtain accurate information, and that it gives no opportunity

for a systematic study of the psychological processes set in train by the experience. For these reasons we concluded that the retrospective follow-up had only very limited use as a method for future research in this field, and that new projects would be well advised to utilize the current study approach.

SUMMARY

1. In order to test and refine hypotheses regarding the ill-effects on personality development of separation from the mother in early childhood, a follow-up was planned of children who had experienced a separation in their early years which, although long, was of a kind likely to be less traumatic than the experiences of children studied by Goldfarb.

2. The sample chosen was a group of children who, because they had had tuberculosis, had been patients in a sanatorium for periods of months or years starting before their fourth birthday and who were at the time of the inquiry living at home and attending school. The total sample was sixty, though in most areas of the investigation the number available for study was smaller than this. The age at time of follow-up ranged from 6.10 to 13.7 years.

3. For purposes of comparison in respect of I.Q. and behaviour in school a control group was selected of children matched for age and sex with the sanatorium children and attending the same school class; each sanatorium child was matched with three controls. In respect of separation the controls are a random group.

4. The data used for the comparison of the sanatorium children and the controls are derived from two independent sources—a teacher's report form and a psychologist's report. The information requested on the form was limited to concrete items of behaviour of which the teacher might be expected to have first-hand knowledge. In reporting, both teachers and psychologists knew which child was which.

5. Although there was a tendency for more of the sanatorium children than the controls to

be in the lower range of intelligence, no difference reaching statistical significance was found in respect of I.Q. between the two groups. The mean I.Q. of the sanatorium children was 107 ± 22.8 ; this differentiates them sharply from the institution children studied by Goldfarb, whose mean I.Q. was 72.4. There was some evidence suggesting that entry to hospital before the second birthday affects later I.Q. adversely.

6. A classification, based on the psychologists' reports, of the children's behaviour in the test situation was made by psychologists ignorant of which child was which. A comparison showed that fewer of the sanatorium children than of the controls were able to respond adequately in the test situation. Using the χ^2 method, this difference is shown to lie at a level of confidence between 0.05 and 0.02.

7. When the two groups of children were compared in respect of each item of the teachers' report form, virtually all the differences found were adverse to the sanatorium group. However, when tested by the χ^2 technique, none reached a level of statistical significance.

8. The reports of teachers were then divided on the basis of explicit criteria into those in which more and those in which less confidence could be placed. When the same comparisons were made using only those reports judged to be the more reliable, clear differences between the two groups of children appeared. In eleven of twenty-eight items of the report form a larger proportion of sanatorium children than of the controls was given a marking indicating maladjustment; in the remaining seventeen items differences were negligible. In five of the eleven items which showed a difference the level of confidence was better than 0.05.

9. When each child is scored for the presence in his report of those statements indicating maladjustment which occur within these five items, a comparison of the distribution of markings shows the sanatorium children to be significantly less well adjusted than the controls. If the comparison is confined to the

children with reliable reports P is less than 0.001; when all children are included P is 0.01.

10. Qualitatively the differences between the two groups of children are found to be that the sanatorium children are inclined towards (a) withdrawal and apathy and (b) roughness and tempers, both of which tendencies had been found by Goldfarb.

11. The differences found are not as great as had been anticipated; in particular, few of the sanatorium children appear to be delinquent, and at least half are reported to make friends reasonably well.

12. When the findings on the sanatorium children are compared with those on Goldfarb's institution children the impression is gained that more of the latter group are disturbed and that their disturbances are more serious, which is in keeping with expectations.

13. To permit of a more detailed review of the personalities of the sanatorium children a psychiatric social worker interviewed their parents. On the basis of these data, considered along with those obtained from teachers and psychologists, ratings were made of the degree of personality maladjustment shown by the children. Of the fifty-seven rated, thirty-six or 63% were judged to be maladjusted; of the balance, eight seemed well-adjusted and thirteen adjusted but with minor problems. This distribution is in conformity with those found by Beres & Obers and by Lewis. No light is thrown on the reasons for this great variation in outcome.

14. On the basis of the same data, the sanatorium children were classified by form of personality organization. They fell into three major classes: the first, numbering twenty-six, contained children all of whom showed strong positive feelings towards their mothers and included many children who were pathologically over-dependent; the second class, numbering twelve, contained children who were markedly ambivalent in their relationships; the third, numbering thirteen, contained children the loving components of whose relationships were little if at all expressed, whilst hostile

components or indifference were openly displayed. Six children could not be classified.

15. Despite the diversity, even contradictoriness, of outcomes, reasons are given why it is reasonable to advance the hypothesis that the experience of separation may account in part for these different outcomes. Their similarity to certain responses to be observed during and soon after a separation experience is noted, in particular the tendency of the child to show either a much increased demand for his mother or a repression of this drive. It is emphasized, however, that, even if some of the variance in outcome is probably due to variations of response during and after separation, much of it must be attributed to other antecedents, in particular the child's experience with his mother before and after separation.

16. It is concluded that some of the workers who first drew attention to the dangers of maternal deprivation resulting from separation have tended on occasion to overstate their case. In particular, statements implying that children who experience institutionalization and similar forms of severe privation and deprivation in early life *commonly* develop psychopathic or affectionless characters are incorrect. The results of the present study, however, give no grounds for complacency.

17. It is also concluded that the disadvantages of the retrospective follow-up method are such that it is likely to have only limited use as a method for future research in this field.

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APPENDIX

A copy of Parts I and II of the teacher's report form is given here. In the right-hand margin in place of the 'boxes' for the teacher to check the appropriate statement, there have been inserted four columns:

Column 1. Evaluation of statement in terms of its indication of adjustment-maladjustment: + indicates adjustment, - indicates maladjustment, 0 indicates neither. All items in Part II were evaluated -.

Column 2. Number of sanatorium children checked for each item.

Column 3. Number of sanatorium children multiplied by three to facilitate comparisons with controls.

Column 4. Number of control children checked for each item.

After each item in which there is a discernible trend, the χ^2 has been given, in all cases taking statements evaluated as + and 0 against those evaluated -. Size of P is added (see Table 6 in text).

TEACHER'S REPORT FORM

PART I

Below there will be found twenty-two groups of statements. Place a tick in the box opposite the statement in each group which seems to fit the child most closely, leaving the adjoining boxes blank. Where more than one statement in a group might apply, decide which comes nearer the mark and tick that one only. If none of the statements in a group seem applicable, please leave the boxes unmarked and make your comments in Part VI (a).

	Evaluation	Sanatorium	Sanatorium × 3	Control
1. He is rather slow to pick up what he is taught	0	21	63	38
He picks things up about as quickly as the average child	0	10	30	46
He is unusually quick in the uptake	0	1	3	12
Omissions		0	0	0
2. He makes friends pretty easily with other children	0	22	66	76
He makes friends, but takes a long time to do so	+	6	18	16
He seems to want to make friends, but not to be able to do so	-	3	9	1
He does not seem to want to make friends	-	1	3	3
Omissions		0	0	0
$\chi^2 = 3.02$; P lies between 0.10 and 0.05				
3. He fusses rather a lot if he gets a knock	-	6	18	18
He sometimes fusses but soon gets over it	+	12	36	32
He takes no notice of such occurrences	-	13	39	45
Omissions		1	3	1
4. He is frequently spiteful to other children	-	1	3	4
He is spiteful on occasion	0	7	21	18
I have never noticed any such behaviour	+	23	69	74
Omissions		1	3	0
5. His school work is exceptionally tidy	0	2	6	21
It is as tidy as I would expect for his age	+	20	60	54
It is very untidy	0	9	27	19
Omissions		1	3	2
6. He is a somewhat apathetic boy	-	10	30	26
He is quite lively and responsive	+	16	48	60
He is inclined to become over-excitable	-	6	18	6
Omissions		0	0	4
$\chi^2 = 2.30$; P lies between 0.20 and 0.10				
7. He is apt to be one of the children who cause trouble	-	8	24	15
He is rather easily led into trouble	-	4	12	17
He is not one of the troublesome ones	0	20	60	64
Omissions		0	0	0
8. He is very competitive with other children	-	4	12	13
I regard him as normally competitive	+	14	42	63
He seems diffident about competing with them	-	7	21	8
He does not seem to care how he compares with them	-	7	21	12
Omissions		0	0	0
$\chi^2 = 4.71$; P lies between 0.05 and 0.02				

TEACHER'S REPORT FORM (continued)

	Evaluation	Sanatorium	Sanatorium × 3	Control
9. He is liable to get unduly rough during play time	—	7	21	7
He takes a normal part in rough and tumbles	+	17	51	69
He seems a bit frightened of rough and tumbles	—	7	21	17
Omissions		1	3	3
$\chi^2 = 4.09$; P lies between 0.05 and 0.02				
10. He is inclined to show off to attract attention	—	9	27	18
This is not one of his characteristics	0	23	69	78
Omissions		0	0	0
$\chi^2 = 1.28$; P lies between 0.30 and 0.20				
11. He concentrates well on a task	+	8	24	29
His concentration is not too bad	+	6	18	36
His attention wanders rather frequently	—	18	54	31
Omissions		0	0	0
$\chi^2 = 5.83$; P lies between 0.02 and 0.01				
12. He bosses his school mates about rather a lot	—	3	9	15
He is not bossy, but can stand up for himself alright	+	22	66	61
He tends to get bossed about	—	6	18	18
Omissions		1	3	2
13. He does not hesitate to be untruthful to get out of trouble	—	2	6	6
He tries to get out of trouble in this way on occasion	+	8	24	18
I can usually rely on his telling the truth	+	22	66	71
Omissions		0	0	1
14. He can settle down well to activities without suggestions from me	+	9	27	41
He is all right on his own at times	0	12	36	41
He does not seem to know what to do unless he is told	—	10	30	12
Omissions		1	3	2
$\chi^2 = 6.08$; P lies between 0.02 and 0.01				
15. He frequently seems to be up against me	—	0	0	1
At times he is friendly, at other times up against me	+	4	12	13
He is consistently friendly to me	0	23	69	74
He seems unable to form any real contact with me	—	4	12	7
Omissions		1	3	1
16. He does not work hard at his lessons	0	8	24	23
He works about as hard as most children of his age	+	19	57	56
He works exceptionally hard	0	4	12	16
Omissions		1	3	1
17. He keeps his friends satisfactorily for a boy of his age	+	27	81	87
He is unable to keep his friends	—	4	12	6
He does not make any friends at all	—	0	0	1
Omissions		1	3	2
18. He is over-sensitive to criticism	—	5	15	16
He takes criticism pretty well	+	21	63	63
He is inclined to pay too little attention to criticism	—	5	15	14
Omissions		1	3	3

	Evaluation	Sanatorium	Sanatorium × 3	Control
19. I have never seen him lose his temper with other children	0	16	48	68
He loses his temper with them now and again	+	15	45	25
He is apt to do so rather frequently	-	1	3	2
Omissions		0	0	1
20. He is inclined to be a bit too familiar with me	-	0	0	1
He talks spontaneously and naturally to me	+	25	75	73
He seems to find talking to me a bit difficult	0	5	15	21
He seems to have considerable difficulty in talking to me	-	1	3	1
Omissions		1	3	0
21. He does what he is told quicker than most children	0	5	15	14
He is about average in this respect	+	20	60	65
He is inclined to be disobedient	0	4	12	15
He is frequently disobedient	-	2	6	2
Omissions		1	3	0
22. He is apt to tell tales about his school mates	-	8	24	19
This is not a particularly frequent occurrence	+	12	36	28
He does not tell tales	0	11	33	48
Omissions		1	3	1

PART II

Place a tick against any of the following characteristics which apply to him/her.

	Sanatorium		Sanatorium × 3		Controls	
	Yes	No	Yes	No	Yes	No
23. Crying easily $\chi^2 = 1.53$; P is at 0.20	6	26	18	78	10	88
24. Stammering, speech defect	3	29	9	87	8	88
25. Blinking, twitching $\chi^2 = 2.47$; P lies between 0.20 and 0.10	4	28	12	84	3	93
26. Nail-biting, thumbsucking, chewing pencils, clothes, etc. $\chi^2 = 1.95$; P lies between 0.20 and 0.10	6	26	18	78	9	87
27. Day-dreaming $\chi^2 = 8.78$; P is less than 0.01	13	19	39	57	15	81
28. Truancy	0	32	0	96	4	92
29. Pilfering	1	31	3	93	0	96

PSYCHODIAGNOSTIC ASSESSMENTS OF A CHILD AFTER PROLONGED SEPARATION IN EARLY CHILDHOOD. II

By W. M. WHEELER*

Since 1948 a research unit of which the author is a member has been investigating the effects of mother-child separation. During this time it has been possible to keep in touch after their return home with six children whose responses during their prolonged separation from their mothers had already been observed. One of these children, Roddy, has been the subject of a study based on his responses to a series of psychological tests by our colleagues Ainsworth & Boston (1952).

The present paper continues the study of Roddy and is based upon tests administered two and one-half years after the last testing previously reported. The results of the previous testing are reviewed briefly and a short description of the subject's current status is given. More complete historical data can be found in the aforementioned publication.

In view of the relative richness of the material obtained with two of the five tests previously used, only those two, the Rorschach and the Children's Apperception Test (C.A.T.), were administered in the follow-up reported here.

* Psychologist, research unit at the Tavistock Clinic and Institute of Human Relations, under the direction of Dr John Bowlby. Whilst the work reported here has been in progress, the unit has been supported by the Sir Halley Stewart Trust, the Central Middlesex Group Hospital Management Committee, which is responsible for the Tavistock Clinic, the Trustees of Elmgrant, the International Children's Centre in Paris, the European Office of the World Health Organization and the Josiah Macy Jr. Foundation, to all of whom thanks are due. The author is indebted not only to Mary Ainsworth and Mary Boston, who conducted the earlier study of the case, but also to James Robertson, the chief field-worker, whose continuing interest in Roddy made this study possible.

The case of Roddy is presented as an illustration of the use of projective techniques in longitudinal clinical research with children. There are two main points of interest:

(a) *Inter-test comparisons*: the way in which two projective techniques, namely, the Rorschach technique and the C.A.T. supplement each other.

(b) *Retest comparisons*: the continuity and change to be observed through retesting over a period of years.

Although it is believed that Roddy's responses to separation and reunion are similar in many ways to those of other children who have suffered separation, it is not the intention to present him as typical of a separated child. No generalization can be made from the single case about the responses of children to separation and their subsequent adjustment after reunion. Work is in progress analysing the data which have been collected about the responses to separation and reunion of a number of children, including the six to whom reference has been made above.

Resumé of separation history

Roddy, the youngest of four children, contracted tuberculosis at the age of thirteen months. Table 1 gives the dates of the major separation and subsequent minor ones, and also the dates of psychological testing.

Ainsworth & Boston give a detailed case history in their publication, tracing Roddy's development during and after separation up to 1951 when he was six years old. The next section of the present paper continues this history and gives a brief account of the child's current level of adjustment and the family situation in which he lives.

Table 1. *Calendar of separations, reunions and testing*

Event	Date	Age
Birth	9. i. 45	—
First separation	? ii. 46	1.1
Reunion	30. i. 49	4.1
Second separation	30. x. 49	4.9
Reunion	3. xi. 49	4.10
First Rorschach	6. iii. 50	5.2
First Stanford-Binet (Form L)	6. iii. 50	5.2 (I.Q. = 98)
Second Rorschach	20. vii. 50	5.6
Third separation	21. xii. 50	5.11
Reunion	24. xii. 50	5.11
Fourth separation	4. i. 51	6.0
Reunion	14. i. 51	6.0
Fifth separation	22. i. 51	6.0
Third Rorschach	19. ii. 51	6.1
Second Stanford-Binet (Form M)	19. ii. 51	6.1 (I.Q. = 99)
First C.A.T.	19. ii. 51	6.1
Reunion	26. ii. 51	6.1
Second C.A.T.	10. viii. 51	6.7
Fourth Rorschach	18. iii. 54	9.2
Third C.A.T.	18. iii. 54	9.2

Current status

Over the past three years the father, who previously had tuberculosis, has been in good health. The mother, while not seriously ill, has had recent undiagnosed complaints. The two older children are married and each has a child. The son lives about ten minutes away from the family home but seldom visits. The daughter lives in a room above her parents and remains, with her husband and baby, an intimate part of the family. The younger daughter, Jane, who is still at school, lives at home. For a time Roddy went to a special open-air school, where his health improved considerably. He now attends a regular school near his home, where he is doing well. The headmaster reported to the field-worker that Roddy had been very retarded academically when he first came to them in 1953. He has worked his way from the C stream through the B stream and is now in the A stream. He was 9th out of a class of

37 in the B stream and is now 37th out of 38 in the A stream.

Roddy, now aged nine years, seems to have changed little during the past three years except in so far as his physical health has improved. He still remains more friendly towards his father than towards other members of his family and occasionally likes to do gardening with him. He behaves in a jealous manner towards his sister Jane and is very ready to fight with her.

He seems to have a number of friends but no special friend. While quite pugnacious at home he hardly ever gets into fights outside.

The relationship to the mother shows all the old difficulties. He is still stubborn towards her, easily frustrated and very aggressive under such circumstances. He will punch both her and the father when frustrated. His mother rarely takes him shopping because he is so demanding.

Roddy's fifth (last to date) testing session immediately followed the occasion of these observations.

*Resumé of results of previous testing**The Rorschach*

In the previous Rorschach tests certain characteristics were apparent. These, as reported by Ainsworth & Boston, can be put in an abbreviated form. The series of three Rorschach tests will be discussed as a unit, first in terms of their formal characteristics, and secondly in terms of the interpretation based upon these characteristics.

All three Rorschachs were remarkable for the degree to which responses were perseverated. This was associated with the occurrence of responses of low form level. There tended to be a number of crude whole responses. There was a paucity of Popular responses with no Populars in the first protocol, two additional Populars on the second, and one main Popular on the third. There was a tendency to use white space in the first and third protocols, though not on the second, and during all three previous administrations

the cards were frequently turned. Animal and Human responses were infrequent on all administrations; this varied from no Animal responses to two, and from no Human responses to one. The responses were form dominated with some tendency to use black colour, but little tendency to use any other scorable quality. The number of responses tended to increase each time, with the most marked increase on the third administration.

In terms of interpretation, the following statements have been abstracted from those made by Ainsworth & Boston: The tests show a retreat from forming relationships, associated with a tendency to be non-committal in any sort of involvement. The relationship with the father was seen as fairly strong in the early test, but weakened in the later ones, especially the third. The relationship with the mother was weak throughout. The father was seen as the figure with whom the main identification was made, and there were certain implications that this figure was also treated as a substitute maternal one. A preoccupation with phallic interests was most marked in the later records when there was considerable attention paid to the projections on the card. This was associated with an apparent mutilation fear and an interest in death. There was concomitant fear of oral aggression, but this became less emphasized in later tests. Associated with both the mutilation fear and the attachment-identification with the father was a confusion of sexual roles and a concomitant homosexual trend. From earlier to later tests there was a shift in terms of reality contact; as increased ties with reality became apparent, less fantasy was imposed upon the material. At the same time, there was a somewhat paradoxical breaking of what had initially been severe constriction and some loosening of affect. Part of the affective shift could be accounted for as an increase in depressive trends.

In Table 2 the scoring and main content of the Rorschach responses of each of the three previous tests is given along with comparable material from the current Rorschach.

The C.A.T.

In the first of the two previous C.A.T.'s the father figure appeared to be preferred to the mother. There was a hostile attitude expressed towards the mother in a direct fashion. In the later C.A.T., on the other hand, both mother and father figures were rejected. There seemed to be confusion at that time between the mother and father roles and some additional confusion about where 'baby' fitted into the family picture. Whereas at first there was an identification with a combined father-mother figure, later he seemed not to 'identify' at all.

The general approach to the C.A.T. cards on both occasions was an enumerative-descriptive one. At the same time there was some violation of the test material when fantasy interfered, especially in the first C.A.T. Thus what might be called picture-domination was combined with concept- or fantasy-domination. There were also internal inconsistencies in the stories. The enumerative-descriptive approach led to a meagre record in both instances and to a preoccupation with inanimate objects in the background. Feelings of the characters and relationships between the characters were either not expressed at all or if expressed were based on very obvious elements in the cards. The expression of relationship was given more or less in passing and at a descriptive level and, when given, its character was usually aggressive-competitive. Even the competitive element tended to drop out in the second C.A.T. in which there seemed to be a preoccupation with 'falling down'.

Interpretatively, the C.A.T. agrees well with the Rorschach and tends to substantiate most of the points raised in that test.

Both administrations of the C.A.T. indicated that there was considerable difficulty in integrating internal and external reality; there seemed to be a flight from both. It seemed possible to interpret directly the poverty of the relationships described, and the tendency to reject human contact. There were indications that the identification was with the father, but that this identification tended to be a passive

one formed primarily to ensure an alliance. The relationship with the father figure was interpreted to have certain homosexual implications.

Considerable disturbance was indicated in relation to masturbation and sleep. These seemed to be as much a focal problem as the relationship to the mother, chiefly because the latter was better defended. There was still some need for contact with the mother but in a highly negative way. There was a suggestion of a depressive tendency.

In Table 3 the responses to the C.A.T. cards on each of the previous two administrations are given along with the current C.A.T. responses.

Current test results

Behaviour in the test situation

The examiner had been in Roddy's home for about half an hour before the child arrived from school. The half-hour was spent in conversation with his mother and teen-age sister and was on innocuous subjects, e.g. American movies. When Roddy came in and was introduced he shook hands shyly. A few minutes were spent in joint conversation; then the mother and sister retired to another room. The boy continued to behave in a shy manner and only became relaxed when talking about school games. He said he wants to be a footballer when grown-up or go into the Army like his brother. 'I used to want to be in the Navy like my father, but now I want to be like my brother.' The mother sent in tea, which enabled the boy to relax a bit more. He did not, however, finish his tea, saying 'I like my cup of tea but only when I have a mind to.' He was never really friendly but did converse and answer questions. He responded to the tests only after encouragement. He seemed willing to accept the task before him, but it was clearly not a task that he enjoyed. Superficially he gave an impression of maturity, maturity of a pseudo-adult nature as reflected in the tone of his comment about the tea.

The Rorschach

The most striking element in the current Rorschach is perseveration, which had been noted in previous testing. For example, hands, fingers and/or thumbs are given as the second response to the first four cards. These responses fit card I and to a degree card III; the fit (form level) in cards II and IV is quite poor. The particular content of the perseveration did not occur previously and may have specific meaning at this time, as will be discussed later. In addition, the 'arch' response of previous testings is perseverated in cards IX and X. (This would not be called perseveration ordinarily because it occurs only twice, but since one can see from the previous records that it was a perseveration, it can be so called here.) Similarly, the vague 'land' responses to cards V, VII and X can be described as perseverative.

The form level is generally low as before and, since the boy is now three years older than he was at the time of his last previous testing, it is now more serious. Especially poor is the form level of the perseverated finger responses to cards II and IV, although many responses have a vague form rather than a genuinely minus form level. Thus, while on card III the hedgehogs apparently stimulated him to laughter, he cannot specify and, while the blot area could correspond to a rolled-up hedgehog, the defining features are necessarily vague. The 'land' responses to cards V and VII are at best vague, and when he does attempt specification (card X, response 3, as 'England') the response is not improved but rather degenerates from vagueness to an actual lack of correspondence between concept and blot area, and this without any attempt on his part to specify but only to assert.

W responses are not currently emphasized, as they were in previous tests, only three out of the twenty-four responses being W's. He seems, on the contrary, to have emphasized a completely different aspect of his approach, namely, small or even tiny details. This is emphasized to the extent that ten of his responses are given to d or dd areas of the blot.

This characteristic seems to result from a preoccupation with tiny projections, and most of the responses have as content such things as fingers, whiskers, legs and heads. This is consistent with his behaviour on previous tests, but now is greatly emphasized by increased frequency.

The total number of animal and human responses including animal detail and human detail is no longer low (14 out of 24), but there are certain peculiarities:

(a) Except for an unscored tendency to enliven two of the 'finger' responses, there is no indication of the use of either human or animal movement, in spite of half the record

being composed of responses where such enlivenment could be projected. A tendency to M might have been scored for the 'finger' responses on the basis of the fact that he demonstrates the shape with his own hand. However, the verbalization of this was not elicited and even the demonstration arose as a result of questioning on card II and not spontaneously.

(b) Possibly the most idiosyncratic element is the emphasis on animal detail and human detail, especially the latter, in preference to whole animals and whole humans.

The previously noted colour naming has dropped out, but it is noticeable that no FC

Table 2. *Rorschach responses*

Card no.	Age 5 yr. 2 mth.	5 yr. 6 mth.	6 yr. 1 mth.	9 yr. 2 mth. (current)
I	1. WFPI Tree	1. Rej. (Cat) 2. ddFMA Birds	1. WFObj Boat 2. DFArch Gate 3. WFPI Tree	1. WFA Bird 2. dFHd Hands
II	1. WFA Cat	1. WFA Rabbit	1. WFA Rabbit	1. DFHd Feet 2. DrFHd Fingers
III	1. WFA Cat	1. Rej. (Rabbit) 2. WFC'A Dogs	1. DFA Dogs 2. DFN River	1. DFObj Bow 2. DFHd Arms; Fingers 3. dFA Hedgehogs
IV	1. WFPI Tree	1. WFC'A Wolf 2. ddFC'A Birds	1. WFMA Frog 2. WFA Horse	1. ddFHd Eyes 2. dFHd Thumbs 3. dFA Butterfly
V	1. WFPI Tree	1. WFA Rabbit	1. WFA Rabbit 2. WFA Fox	1. dFHd Legs 2. WFGeo Land
VI	1. WFPI Tree	1. WFH Man	1. WFArch Gate 2. WFA Mice	1. ddFAd Whiskers 2. dFAd Heads
VII	1. WFArch Church	1. WFArch Church	1. WFArch Fence 2. SFArch Path	1. WFkGeo Land 2. ddFHd Heads
VIII	1. WCFObj Windmill (Toy)	1. WFObj Boat	1. WFObj Boat 2. DFMA Lions 3. WFPI Tree	1. DFA Animals 2. DFN Rock
IX	1. WFArch Churchway	1. Rej. (Boat) 2. WFArch Part of cemetery	1. WFPI Tree-trunk 2. WFAObj Rabbit-skin	1. DCN Sea-water 2. DFN Rock arches
X	1. DFArch Churchway (door)	1. Rej. (Cemetery)	1. WFA Spiders 2. WFArch Arches (Church) 3. WFPI Trees	1. DFPI Tree-trunk 2. DFObj 'Plane (Map) 3. FDGeo England (Map) 4. DFArch Arch (Cemetery)

responses occur and that the one colour-determined response ('sea water' to Card IX, response 1) is almost a pure C response, as indicated in the testing of the limits by the response, 'It looks like sea-water.' (Given on card X when asked about the blue 'spider' areas in an attempt to elicit the popular response.) Thus there is a tendency to call blue areas 'sea water', regardless of shape, and this would indicate a C rather than a CF score.

The use of C' dropped out and there is no use of shading whatsoever, with the exception of one possible use of Fk, which may have been suggested by the questioning.

The outstanding idiosyncrasies of this record are: perseveration; attention to small details, especially projections; the absence of human figures; few popular responses.

Viewed as a whole the current Rorschach gives a weak and highly constricted record:

(a) In spite of giving twenty-four responses Roddy has only two populars. (Card I, response 1 and card III, response 1. The animals on card VIII cannot be scored as popular since no movement is projected.)

(b) There are no human figures and only four animal figures.

(c) Few determinants other than form are employed. ($F\% = 92$; no movement of any kind, M, FM or m; no use of colour, FC or CF, with the exception of one pure C response to card IX.)

(d) Little successful integration of blot areas occurs. ($W\% = 12.5$ and two of the three wholes are vague 'land' responses.)

There are no fantasy-determined or bizarre responses (with the possible exception of the very last one), so that a disinterest in the material rather than any loss of contact with reality is indicated.

The previous records are highly W dominated (90 %, 80 %, 77 % respectively), and the present record shows a distinct shift to the use of d and dd areas. The content of some of the d and dd responses (hands, thumbs, legs, whiskers) indicates that this is due to increased concern with protrusions, implying increased

preoccupation with castration and masturbation.

A lack of capacity for object relationships and emotional development is indicated by the absence of M, FC and CF determined responses. The ratio of $H+A/Hd+Ad$ of 4/10 indicates a marked tendency to fragment figures, consistent with the indications of little capacity for object relations. The inability to relate to other human beings does not seem to be restricted to an inability to relate to women, as previously suggested, since no discrimination is made in the present record either in terms of figures projected (of which there are none) or card areas used. The so-called father cards are treated no differently than the so-called mother cards.

Perseverations continue to occur (hands, fingers and thumbs; arches; land). Besides contributing to the general poverty of the record, these by their content and area reinforce the suggestion of phallic preoccupation. Especially since the 'arch' response was perseverated in previous records does it take on individual meaning. The association in card X, response 4, of the arch with a cemetery suggests that this 'individual meaning' is a concern with death.

From a diagnostic point of view the Rorschach shows characteristics typical of both a long-standing neurotic reaction and of a character and behaviour disorder typified by a lack of emotional contact and a lack of capacity for object relationships. The fear (at this time much better described as a fear of castration than as a fear of separation from the mother) probably effectively prevents an acting out of the anti-social trends, which might be expected on the basis of the character disorder alone. Thus Roddy is prevented from indulging in 'delinquency' by the fear of external objective punishment associated with castration. One might anticipate that if this fear were to be overcome, for example through natural physical growth with concomitant increase in the libidinal drive at puberty, openly destructive behaviour of a phallic and exhibitionistic sort could get him into serious trouble.

Table 3. Responses to Children's Apperception Test*

Card no.	Age 6 yr. 1 mth.	Age 6 yr. 7 mth.	Age 9 yr. 2 mth. (current)
1	A chicken and three little birds having a party. The chicken keeps on pecking. <i>Inquiry.</i> She wants something to eat. . . . The birds start eating their food.	Chicken. (Pointing to the big one.) <i>Inquiry.</i> It is a cock-a-doodle-doo. . . . Eating. . . . Jelly. . . . Birds sitting at a table.	<i>Inquiry.</i> Three chickens eating out of a basin with a spoon, on a table. Named? J. K. & T. Do? I don't know. School? No because chickens. Family? Big chicken. Who? Mother. . . . Have bibs on. . . . Eat and then pray.
2	They're bears pulling a rope. The father and mother and the baby. <i>Inquiry.</i> They are having a game. . . . They keep on pulling the rope. . . . The father's going to win. He has the most string. . . . The baby's pulling an' all. They're all having a game. . . . The father and baby winning an' all. The father and the baby. . . . She's losing. . . . She ain't got no string at all. She's in the middle. Who do you want to win? The father and the baby.	<i>Inquiry.</i> They're having a game. . . . They are pulling the rope. Who is going to win? That one. (Pointing to the middle-sized one.) The father one. That's mother, father and baby. . . . They will fall over.	Three bears having a tug-of-war. Father, mother, baby. They are standing on a rock. <i>Inquiry.</i> Father and baby win.
3	There's a lion sitting in a chair. It's a father lion. <i>Inquiry.</i> He's smoking a pipe. He's sitting in the chair. They're on the beach. . . . Water. It's all waves. He's sitting on the path.	A lion sitting down in a chair smoking a pipe. It's on a boat. <i>Inquiry.</i> He's at the sea-side. . . . Fall over. (He will.)	Lion and mouse. Lion sitting in a chair and the mouse is in a hole. Lion is smoking a pipe and he has got a walking stick by the side of his chair. He is big and the mouse is small. His chair is on the carpet. <i>Inquiry.</i> The lion wants to eat the mouse. Able? Yes, but doesn't. . . . Because mouse says 'don't eat me, I want to help you somehow.' . . . Lion gets caught while hunting and roars and mouse hears him and runs and gnaws rope and lion gets free. . . . The end.
4	Two nanny-goats. A father one and a baby one. The baby one's riding on a two-wheeler. He ain't got no saddle. <i>Inquiry.</i> They're having a ride. . . . That one's Father Christmas. (Pointing to the big one.) 'Cos of the hat, the parcels and the balloon. This is the little 'un (pointing to the baby in the pouch.) and that (On bike.) is mother. . . . It goes with father because it is too small and can't walk. The mother one's got two tails.	They're riding a bike and jumping in the air. That bike's got a big wheel and a little wheel. <i>Inquiry.</i> Kangaroos. That one's got a basket and balloon in his hand. And a hat on him. And there are some trees. . . . Mother kangaroos's got a bag on. . . . That's the mother and the baby. . . . They fall down the hill.	Two kangaroos. One's a lady, the other one is carrying shopping basket—been shopping. She has got a shoulder bag and a hat with flowers. There are some chairs. She has a long tail, they both have long tails. That is the baby. <i>Inquiry.</i> Pouch? Another baby and he has got a balloon. That one has got a small tail and big ears. In pouch? Got a short one. . . . There is a house and it's got a fire in it. Largest? It's got an oblong nose. How many wheels? Two and it's got handle bars and a saddle.

* The dots in the *Inquiry* sections of the C.A.T. protocols indicate that the examiner asked questions of the subject. Where the sense of the answer is dependent on the question it has not been omitted, but is given in italics. The phrases in brackets are intended to clarify the child's verbalizations which are otherwise given verbatim.

Table 3 (continued)

Card no.	Age 6 yr 1 mth.	Age 6 yr 7 mth	Age 9 yr 2 mth (current)
5	It's a field. They're two little field mice in a cot. <i>Inquiry.</i> Laying down. <i>Asleep?</i> No. ...Yes....The big bed where the father one goes. <i>Anyone else?</i> No-one else....There's no-one there now.... They're all trees....Outside the house.	A bed and another bed and windows and a little table with a lamp on. Kangaroos. <i>Inquiry.</i> There is one. Two in there. Can't see the other one. There are curtains....It's too dark. <i>Asleep?</i> Yes.	Two bears in a cot. There is a big bed on the other side of it. There is a lamp on the table and it is by the wall. There are some flowers outside (the window). The house is made of wood. <i>Inquiry.</i> The bears are small.... They are sleeping; one has arm outside the bed....Baby bears.... Brothers—one is Tony, the other is Eddy. <i>Big bed?</i> I can't see. I think there is someone in there. <i>Who?</i> Mother and father....It's a big house.
6	A fox. Mother fox and father fox No. A baby and a father. <i>Inquiry.</i> There's no mother. Just two....They're not asleep and are walking about....Mother's at home. She don't want to come out.	Bears. <i>Inquiry.</i> Three....Lying down.... They're tired....They're going for a walk....Through there.	Some bears. Is that one and that the shadow? There is a little bear and they are in a cave. There are some twigs and the cave is made of stone. <i>Inquiry.</i> Three bears—mother, father and little baby....They have got big ears....There are some branches there.
7	A lion. A mother lion and a monkey. The monkey's running away up the tree. <i>Inquiry.</i> The lion's coming up after him. He's going up the lion's tree. It's only a baby-mother-monkey....Going to eat him all up....Cos the monkey's naughty....He catches him. Got his paws out.	Tiger and a monkey. The tiger is after the monkey. <i>Inquiry.</i> He'll eat it up....There might be no monkey....Doesn't like him....Climbs up the tree and the tiger comes up to him.	It is a monkey. He is going to climb the tree. The tiger is chasing him. The tiger's got a long tail. He is big. The monkey is small. The tiger is jumping off a rock and a tree. The monkey's got a short tail. The tiger is roaring. He's got about 14 teeth and short ears. <i>Inquiry.</i> The lion is going to get the monkey....Kill him.
8	Monkeys having a tea-party. <i>Inquiry.</i> They are talking to each other....Talking about the party. They're all sitting down. Two are having a cup of tea, the other two ain't.	Monkeys. <i>Inquiry.</i> Talking, drinking and sitting down. They'll fight. All of them. Don't know why. <i>Who'll win?</i> The big one. (Pointing to the third one from the left.)	Four monkeys, two of them are drinking cups of tea and whispering to each other. One has got a pair of earrings and is sitting on a sort of stool. The others are on a couch and the other is standing up. Got big ears. There's a photo with a lady in it and a door. <i>Inquiry.</i> They are talking. Mother (is talking to him). I think he is going to bed. <i>Which is the father?</i> I don't know. <i>Who are the others?</i> Relatives.
9	Rabbit in his cot in hospital. <i>Inquiry.</i> In his cot. The door's open so someone can get in. No-one's in there yet. He's sitting up. He wants to. He likes it there. Black hospital. It's not a real hospital 'cos it has windows like ours.	Rabbit. Door. Cot. Windows. <i>Inquiry.</i> The house'll fall down and get bombed. (Sang this.)	A rabbit in a cot, sitting up. A lamp on the table. A sort of cupboard and a mirror and a window and a door. <i>Inquiry.</i> He is not well. He has got a cold. I can't see anyone (with him). <i>Can't see?</i> His mother. It is made of wood. The house has got curtains.
10	Two dogs. Father one and ba..., 'nother one. Lavatory for the dogs. <i>Inquiry.</i> It's a lavatory for the baby one, the father one, no, both go in the same one. No, there's a mother one, a father one and a baby one....Just having a rest.	Dogs. <i>Inquiry.</i> Sitting down....They're fighting. They don't like each other. <i>Who'll win?</i> The bigger one.	Two dogs. They have got big ears. One is a little dog. The other is a big one. The big one is sitting on a stool. There is a towel and a lavatory and he has got a short tail. (Both dogs are indicated.) <i>Inquiry.</i> The little one is over the big one's knees. <i>Guess?</i> She is going to hit him....He has been naughty. ...I don't know (why).

The C.A.T.

Since the C.A.T. has a shorter history (see Bellak, 1954) and is less well developed in its formal aspects than the Rorschach, it is less fully discussed than the Rorschach. More complete raw data, however, are presented in Table 3.

The main points which emerge from the recent testing are:

Card 1. He shows an inability and/or unwillingness to enter into the task, perhaps related to a more general unwillingness to let his imagination range free. His desire to please convention (the examiner) seems to be the main motive leading him on.

Card 2. The tug-of-war is between the father and the baby on the one hand and the mother on the other, with the father and the baby ultimately winning.

Card 3. He leaves the card material completely after denying the possibility of aggressive action by the father (lion) against the baby (mouse). A solution is found in the traditional story of the lion who is freed by the mouse.

Card 4. Even at nine years of age he still distorts the picture, adding chairs, omitting the baby, mis-describing the tricycle and describing the nose as oblong. There is considerable concern (as in card 3) about things being large and small, especially phallic representatives; for example, tails.

Card 5. Again there is almost bizarre description of the material, which may be based on misperception. The phrase 'Can't see', applied to the mother and father in bed, may be significant but is not unusual.

Card 6. There appears to be a desire to deny the presence of two parents. Again attention is paid to the big ears; again extraneous elements are described (twigs, stone cave, branches).

Card 7. Here the father (tiger-lion) is described in terms which indicate that he sees it as an aggressor-competitor. Comparison is made in terms of long and short tails. This might be a 'good sign', except for Roddy's evident satis-

faction in the lion killing the monkey. This is indicated not only by the verbal expressions he uses, but by the tooth counting.

Card 8. The mother is sending her son to bed. No figure is identified as the father.

Card 9. Being in bed still indicates 'not well' to Roddy. He shows anxiety about the mother not being present by a quick change of subject.

Card 10. The mother punishes the boy. Again significance is lent to the size of the ears and tails. In fact one of the most striking things throughout the cards has been the marked attention he pays to tails and, to a lesser degree, to ears.

Two elements stand out in the C.A.T. protocol:

(a) The dearth of interaction among the animal characters. In only two cards (2 and 7) is interaction described spontaneously, and in only two others (3 and 10) does it come out after questioning. The two cards where it occurs spontaneously demand interaction so forcibly (tug-of-war, chase) that few children fail to describe interaction on these cards.

(b) The preoccupation with 'appendages' if we take this to include tails, ears, teeth, noses. Cards 3, 4, 7 and 10 most clearly indicate this concern. Responses to card 4 can be traced more fully to exemplify the basis for this interpretation. Both kangaroos are described as ladies and both are described as having long tails. There is no basis in the card for distinguishing the first kangaroo as a lady; it is, in fact, astride a tricycle. The baby in the larger kangaroo's pouch is described as having a small tail, but big ears. There is no basis for implying that its ears are any larger than those of the other kangaroos and, perhaps most strikingly, its tail is not visible at all, since it is in the pouch. The comment about the oblong nose seems purely fortuitous.

These two idiosyncrasies of the record: the inability to interrelate the characters and the preoccupation with phallic characteristics, have their counterparts in the Rorschach, as has been previously explained. However, two additional points come out of the C.A.T.: first, material relevant to the father figure; and

secondly a somewhat fuller description of Roddy's emotional proclivities in terms of tender feelings and aggressive feelings.

The first point, the way in which the father is portrayed, is visible on several of the cards but is perhaps best exemplified in 3, where it is quite clear that size is the dominant characteristic of the paternal figure. This characteristic is idealized and serves as the basis for identification. It can hardly be expected to serve as the basis for a positive one since Roddy equates size with destructiveness. (How little compunction there is, for example, about killing the monkey on card 7.) The implication is that if one can be big and strong one can quite acceptably get away with destructiveness.

The second point, concerning tender and aggressive feelings, leads in part directly out of the acceptability of destruction. Oral aggression predominates and is destructively described and without compunction (see especially card 7).

Of the four stories which include some statement of inter-character relations:

Card 2 is a tug-of-war which the allied father and baby win against the lone mother.

Card 3 is a variation of the traditional story of the mouse who saves the lion after the lion has refrained from eating him.

Card 7 is a story of a totally powerful tiger-lion who chases and kills (by eating) a small monkey.

Card 10 is a description of a big mother dog who is about to hit a small dog who has been naughty.

It is only on card 3 that any mercy is shown. On this card it is remarkable that Roddy emphasizes that the lion *wants* to eat the mouse but doesn't.

There are, with the barely possible exception

of the traditional story to card 3, no indications of any tender feelings between the characters. It is specifically on the cards which permit such tender interactions (1, 4, 5, 6, 8, 9) that he fails to describe any relationship among the characters.

SUMMARY

The history of a child who, since the age of thirteen months, has undergone a series of separations from his family is traced. Interpretations based upon a series of projective tests are given.

The major characteristics of personality development, as shown in the observations and historical material, are: marked stubbornness and aggressiveness within the family circle, but without such noticeable aggression outside the family; demandingness, especially for gifts, with little or no need for object relations except where precipitated by jealousy, in which circumstances the demands are infantile; the inadequate relationship with the parents which, however, appears to be somewhat better with the father than with the mother.

The tests (Rorschach and C.A.T.) administered over a period of four years indicate poor capacity for object relationships and emotional experiences. There is almost no capacity for tender feelings. Diagnostically the boy is described as presenting both a long-standing neurotic reaction and a character disorder.

While the history gives the impression that Roddy shows aggressive reactions, the projective tests indicate that he is not basically an aggressive child but that the aggressive behaviour results from the frustration of passive demands.

The prediction is made that both an active exhibitionistic mode of behaviour and a passive reaction to males will develop.

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THE EFFECTS OF E.C.T. ON THE EFFICIENCY AND RETENTIVITY OF DEPRESSED PATIENTS*

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Some workers suggest that E.C.T. has little or no effect on retentivity (Hemphill, 1940; Sherman, Mergener & Levitin, 1941; Brower & Oppenheim, 1951). The majority, however, assert that E.C.T. has some effect on memory (Zubin & Barrera, 1941; Flescher, 1942; Löwenbach & Stainbrook, 1942; Smith, Hughes, Hastings & Alpers, 1942; Zubin, 1942; Mayer-Gross, 1943; Brody, 1944; Dawson, 1947; Medlicott, 1948; Janis, 1950; Williams, 1950; Williams & Zangwill, 1950; Kehlet & Lunn, 1951; Meyer, 1951; Stieper, Williams & Duncan, 1951; Wilcox, 1951). These papers suggest that E.C.T. produces a retrograde amnesia for events up to one minute before the treatment, and the nearer the treatment material is presented the more likely is its recall to be impaired. The weight of evidence seems to indicate clearly that a course of E.C.T. usually produces a temporary impairment of the ability to retain new material as well as definite amnesia for past events. This memory defect, which may include a disturbance of the time sequence of memories, clears up in about a month, although circumscribed amnesias may persist for longer, and in some cases remain permanent. It has also been suggested that memorized material appears to be made less accessible by E.C.T. rather than to be effaced or permanently lost.

Some workers suggest that E.C.T. produces no impairment of intellectual ability (Brooks, 1946; Brower & Oppenheim, 1951); while others think that it temporarily impairs performance of intellectual tasks (Kessler, 1947; Rabin, 1947; Stone, 1947; Huston & Strother,

1948; Fisher, 1949). The balance of opinion seems to indicate that there is a general decline in cognitive functions which takes place from the beginning to the end of the course of treatment, followed by a rise to a level higher than before. This cognitive impairment seems to occur with tests mainly involving abstract thinking and memory. It does not seem to occur to the same extent with tests involving mainly motor activity.

Retentivity

Memories acquired within the last two or three months up to about the day before recall and recognition are referred to as *recent* memories. Memories of material acquired immediately before recall and recognition are referred to as *immediate* memories. When a person observes some event, memorizes it and recognizes or recalls some aspects of it later, the whole situation can be thought of usefully as consisting of three stages: (1) assimilation, (2) consolidation, (3) recognition and/or recall. There is adequate and generally agreed introspective evidence for the first and third of these stages. These are distinct and there is always an interval of time between them, although the interval may be very short. What is not evident introspectively is that there is any other stage in between these two. Evidence for this has necessarily to be based on careful experimental demonstration.

For the purposes of this paper it will only be necessary to give our three stages operational definitions.

We shall say that certain aspects of an event have been *assimilated* by a subject if he is able at a later time to reproduce some verbal description of them; or to select some aspect of a present event as being similar to the past one.

* Being a summary of a Thesis presented for the degree of Ph.D. at the University of London.

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There is now plenty of evidence that assimilation alone is not enough to ensure retention, and that memories need some sort of *consolidation*. It is a common experience that on waking a person can relate in some detail a dream he has had the previous night, yet an hour later he may be quite unable to recall any detail of it whatever. It would seem that on first arousal from sleep, the brain is in a condition such that it is unable to consolidate memories of dreams, despite the fact that they have been assimilated sufficiently well for them to be recalled at the time. Memories of events assimilated during alcoholic intoxication are known sometimes to share a similar fate.

E.C.T. appears to disorganize rather than to destroy memory traces. Remembered material does not disappear, it merely becomes inaccessible. This was pointed out by Zubin (1942), who showed that interference in the form of learning new associations to a set of words was accentuated rather than diminished after shock. Lidz (1942) regards the fundamental disorder in the amnesic syndrome to be one of inaccessibility rather than of loss of memory material. This is said to apply also to amnesia caused by brain injury (Russell & Nathan, 1946; Williams & Zangwill, 1952). Both papers refer to the fact that in some cases the extent of the amnesia can be reduced under barbiturate hypnosis.

Mayer-Gross (1943) points out that 'memorized material is better remembered if the learning is followed by an idle interval, and mental or physical effort immediately after learning disturbs its recollection'. This, he suggests, indicates that cerebral injury does not destroy the traces or 'engrams' of the immediately preceding impressions, but rather that it prevents them from being properly consolidated. This applies equally to senile dementia, and, of course, to E.C.T.

What we understand by 'consolidation', then, must certainly include accessibility. A consolidated memory is an accessible one. Lack of consolidation may not involve the total effacing of a memory, although it may lead to its being rendered very difficult to recall. We

shall say, therefore, that memories of certain aspects of a past event have been *consolidated* if they remain sufficiently accessible to be recalled or recognized at least twelve hours later. This interval of time has been adopted to correspond with our definitions of 'immediate' and 'recent' memories. Thus immediate memories involve assimilation only, while recent memories involve both assimilation and consolidation.

We shall say that memories of certain aspects of a past event have been *recalled* if a subject is able to produce a verbal description of them which the experimenter recognizes as being similar to his record of the past event.

We shall say that certain aspects of a past event have been *recognized* if a subject is able to select from a number of aspects of a present event, certain ones which are similar to aspects of the past event.

We are now in a position to advance an hypothesis about the effect of E.C.T. on the memory process. It is this: *That E.C.T. prevents the consolidation of memories rather than the assimilation of events which are to be memorized.*

Intellectual ability and efficiency

We have seen that E.C.T. seems to impair output on tests mainly involving abstract thinking and memory, rather more than on tests mainly involving active performance.

It might, therefore, be convenient to refer to two separate processes of planning and performance in any analysis of skill. We shall therefore define *planning* as *the attention to, and organization of perception, the recall of past information and the thinking out of the solution to a problem*; and we shall define *performance* as *all observable behaviour*.

Depression and retardation

The typically retarded depressed patient with his slow movements and slow speech, gives, at first sight, an impression of one whose illness has slowed up all his mental and physical processes. The word 'sluggish' suggests itself, and MacCurdy (1925) used the expressive word

'sodden' to typify these states. He used the concept of 'deficient psychic energy' to explain depressive retardation, and suggested that 'retardation seems quite plainly to be a direct expression of this. Painful thoughts are slow... If we consider the symptoms so far discussed—sadness, hopelessness, unreality feeling and diminished emotional response, retardation and inadequacy—we find that all of them have, as a common characteristic, a lack of "psychic energy"—a kind of mental anaemia—in fact, each symptom presents a different aspect of this deficiency. If one subtracted this factor, very little, if anything of the symptoms would be left.' But as Foulds (1951) points out 'there is no void since we are thinking of something unpleasant... MacCurdy seems to have forgotten that these preoccupations are themselves mental activities presumably using up psychic energy. It is not that painful thoughts are slow, but that other more constructive thoughts are slowed up by the intrusion of painful thoughts. An agitated melancholic may be extremely fluent in recounting the supposed causes of her anguish. It is when she is asked to do something else that she may become slow.'

Lewis (1934) had already pointed this out some years before. 'Slowing of thought and action has long been recognized as an important feature of depressive states... but patients do not spontaneously say their thoughts seem slower or fewer; on the contrary, many complain of over-activity—of a constant surge of thoughts... patients often feel a very distressing inability to call up the thoughts they require. Difficulty of thinking, not slowness of thought is the characteristic feature.'

Motor retardation, if very pronounced, might lead to a slowness of speech, but this is not necessarily an indication of slowness of thought. In fact, it seems useful in this connexion to think of psychic and motor retardation as being independent functions, possibly differently affected by E.C.T.

We are now in a position to advance a second hypothesis. It is this: *That with depressed patients, E.C.T. temporarily produces or*

increases psychic retardation, and at the same time reduces or abolishes motor retardation.

Psychic retardation would best be assessed with tasks involving mainly planning, and motor retardation with tasks involving mainly performance.

If we are able to prove our hypothesis that E.C.T. temporarily reduces the speed of thinking or planning, and increases the speed of action or performance, then we may be able to advance a psychological theory which might help to account for the therapeutic effect of E.C.T. This would be that *E.C.T. in temporarily producing psychic retardation, holds up the 'constant surge of thoughts' referred to by Lewis, thus helping the depressed person to recover. In reducing motor retardation E.C.T. improves the patient's ability to act effectively.*

PLAN OF INVESTIGATION

Groups tested

In our investigation, only depressed patients were tested. Their depression was of moderate severity necessitating hospital treatment. None had clinical evidence of organic impairment nor of thought disorder. No patient over 55 years of age was tested, unless his personality was well preserved, with no clinical signs of senility. Only patients with at least grade III on the Matrices test (Raven, 1938) were included. The tests were also given to normal people at similar intervals to those of the patients.

Treatment given

All patients received electro-convulsive therapy, given on alternate days for courses varying from five to ten treatments. A Spencer-Paterson apparatus was used giving 90–150 volts for 0.1–1.0 sec., alternating current at 50 c.p.s.

Spacing of tests and treatments

Each test was given four times in all, as set out in Fig. 1.

When patients had less or more than six treatments, test sessions III and IV were advanced or postponed accordingly.

Tests used

The first two tests were designed to involve mostly planning and little performance. In the *Addition test* the subject is handed a sheet of paper on which are printed the numbers 2-9 repeated as single digits in random order. He is instructed to add seven to each of the numbers, writing the answer underneath, and to continue to do so until told to stop. He is given 3 min. work, and the number of accurate additions completed in that time constitutes the score of the test.

inserted in one set of holes, and the subject is asked to transfer the pegs from one side of the board to the set of holes in the other side of the board. This operation is timed, and after a brief interval it is repeated. The score is the total time taken to transfer the pegs twice.

The *Morris Wheel* was designed to assess motor retardation. It consists of a small wheel which the patient turns, the rate of turning being measured on a speedometer. The subject is asked simply to turn the wheel at his natural and most comfortable speed, and to continue to do so until told to stop. It is usually possible to engage the subject in conversation while this is being done, so as to distract him from the task, in the hope that a more natural speed

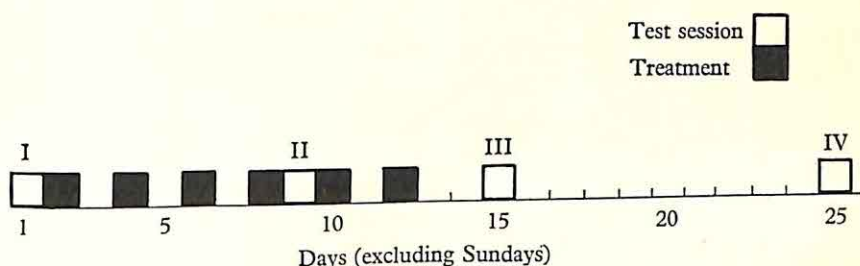


Fig. 1. Spacing of tests and treatments.

In the *Alphabet test* the subject is handed a sheet of paper on which the letters B to Z are printed singly in random order. He is instructed to write under each letter the one that comes before it in the alphabet, and to continue to do so until told to stop. He is given 3 min. work, and the number of letters correctly completed in that time constitutes the score of the test.

The next two tests were designed to involve mostly performance and little planning.

The *Track Tracer* apparatus is well known (Vernon & Parry, 1949). The patient is instructed to run the stylus 'as quickly and as accurately as possible' along the track between the holes, from the outside to the centre of the board. Each subject does five runs and the score is the total time taken. The mistakes made are also noted.

The *Peg Board* consists of a wooden board in which two sets of sixty-three holes in nine rows of seven are bored. Aluminium pegs are

might result. The test is given at the start of the test session, and again at the end. On each occasion ten readings are taken on the speedometer at 15 sec. intervals. This gives a total of twenty readings representing some 5 min. of turning. The score is the mean rev./sec. of the twenty readings.

The next five tests were designed to assess various forms of immediate memory.

In the *Picture Questionnaire* test subjects are shown a picture for 45 sec. after which they have to answer twenty questions about it. A new picture is used at each of the four test sessions. They are taken from the Terman-Merrill revision of the Stanford-Binet test. The score is the number of questions correctly answered.

In the *Picture Description* test subjects are shown a picture which they have studied for 45 sec., after which they are asked to describe it from memory as closely as possible. The pictures used are different for every session. The

score is the number of correct statements made about the picture.

In the *Design Recall* test the subject is shown six designs, one at a time, for 15 sec. each. The subject is asked to draw each design from memory immediately after having seen it. These are scored for shape and orientation.

In the *Tachistoscope* test the subject is shown a series of twenty cards tachistoscopically, and is asked to report on certain salient features. The score is derived from a weighting giving credit to partially correct as well as wholly correct answers.

The *Names Recognition* test consists of showing the subject a list of twenty names typed on a card, which he has to study for 20 sec. He is then handed a pack of forty cards, containing twenty cards bearing the names he has already seen, and twenty bearing other names. He is then asked to select those cards bearing names he has seen on the list. The score is the number of correct cards chosen *less* the number of incorrect cards. A different list and a different pack are used at each session.

The final two tests were designed to assess recent memory.

The *Story Recall* test consists of reading a short story to the patient. The tale used is 'The War of the Ghosts' (Bartlett, 1937), with the last six sentences deleted. This is read to him once, and ten minutes later he is asked to reproduce verbally as much of it as possible. This is taken down in writing as the patient speaks, together with any other comments he makes. The story is read again immediately afterwards. At the following session the patient has to reproduce the story without having heard it again, after which it is read once again. This is repeated in the third session, and in the last session he simply has to reproduce the story. In this way four reproductions of the story are obtained.

The picture used in the *Picture Recognition* test are the first three of the four used for the *Picture Description* test. In the first session the patient is asked to study the picture for 45 sec., after which he either has to describe it or to answer twenty questions about it. In the

second session he is handed six cards, all reproductions of pictures in the same style, one of which was the picture itself. The patient is asked to select any of the pictures he had seen the previous week during the testing session. In this session the patient is also shown a second picture. In the third session the patient is shown the first picture once again together with a new set of five cards of the same style, and is asked to select the one he had seen before. He is shown the second together with five other similar cards, and asked to select the one he had seen before. He is then shown a third picture. In the fourth and last session, he is shown the first picture once again together with yet another set of five similar cards, and is asked to pick out the one he had seen before. He is also shown the second with a fresh set of five similar cards, and is asked to select the familiar picture. Finally he is given the third picture mixed up with five similar pictures, and is asked whether any of them appeared familiar. In this way the only pictures seen repeatedly are those which he had been asked to memorize.

RESULTS

Subjects tested

Thirty patients in all were tested. Of these twenty-two recovered from their illness after treatment, seven improved and one remained unimproved. Twelve of the patients failed to maintain their remission after their first course of E.C.T. and had to receive further therapy. The mean age of the patients was 45.4 years, ranging from 29 to 55 years of age. Nine were men and twenty-one were women.

Since the battery was too large to inflict on any one patient, the tests were arranged so that each was done by twenty of the thirty patients. Each test was also performed four times by ten normal people at weekly intervals.

Output and retardation

Fig. 2 shows the mean scores over the four test sessions for depressive and normal groups on the *Addition Test*. Fig. 3 shows similar results for the *Alphabet Test*.

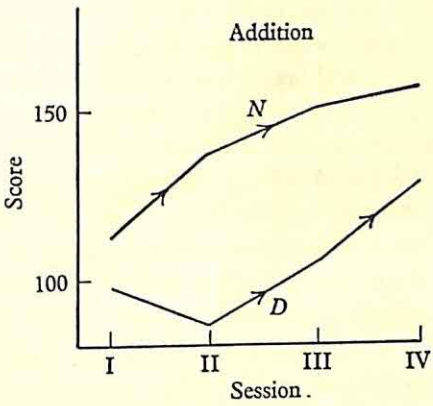


Fig. 2

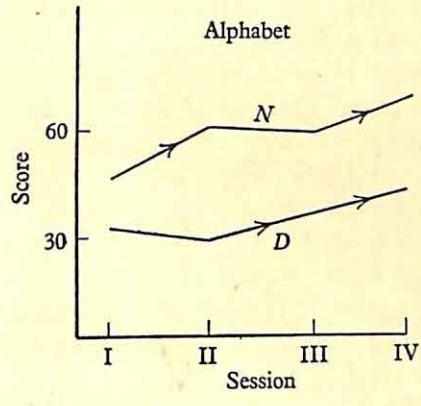


Fig. 3

Figs. 2, 3. Tests of output of mental work. Mean scores for depressive (D) and normal (N) groups. (An arrow-head on a curve indicates that the change in score is statistically significant. $P < 0.05$).

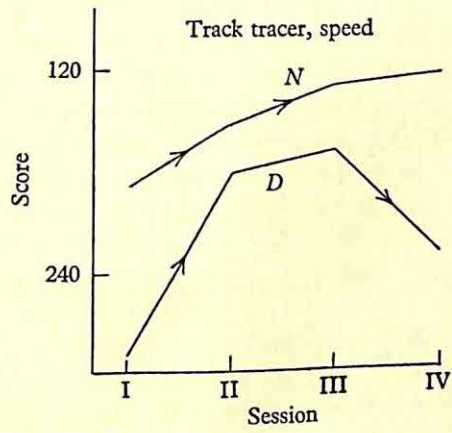


Fig. 4

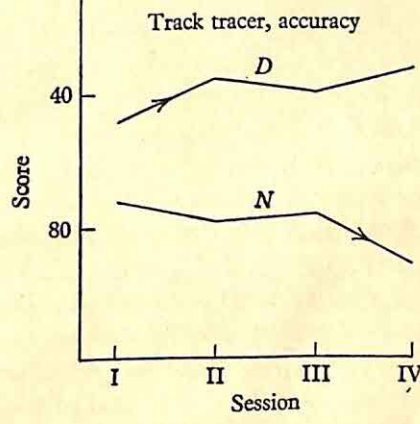


Fig. 5

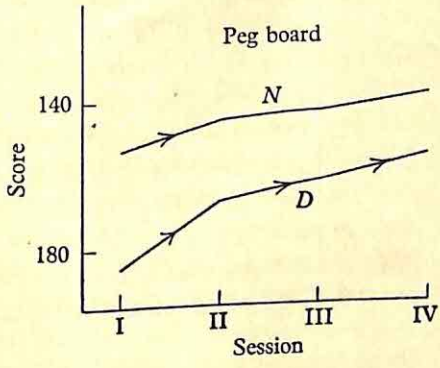


Fig. 6

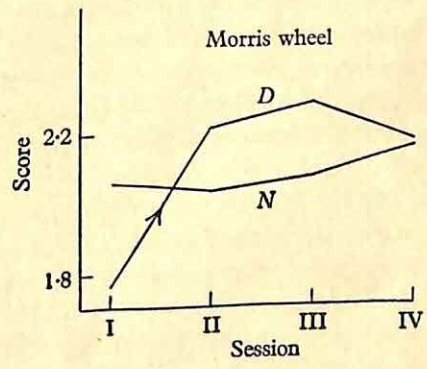


Fig. 7

Figs. 4-7. Tests of output of muscular work. Mean scores for depressive (D) and normal (N) groups. (An arrow-head on a curve indicates that the change in score is statistically significant. $P < 0.05$.)

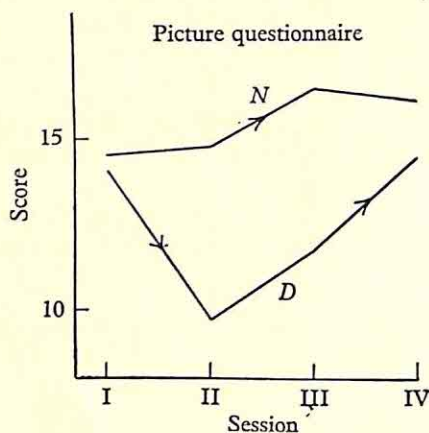


Fig. 8

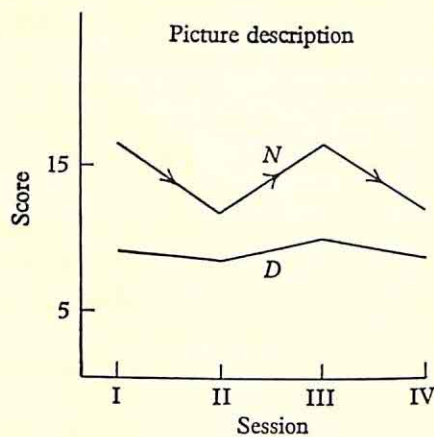


Fig. 9

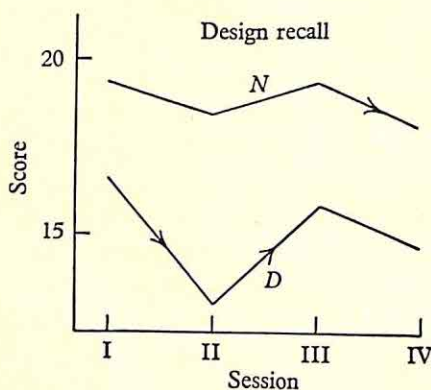


Fig. 10

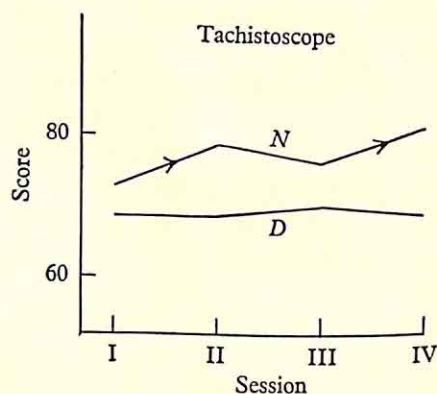


Fig. 11

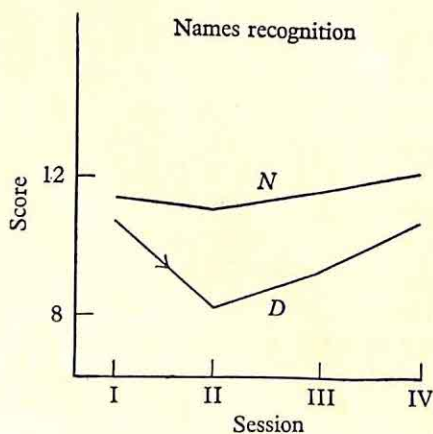


Fig. 12

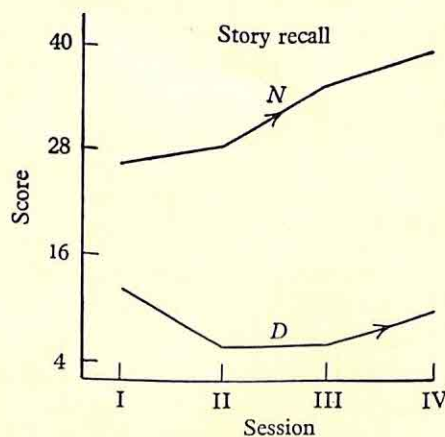


Fig. 13

Figs. 8-13. Tests of retentivity. Mean scores for depressive (D) and normal (N) groups. (An arrow-head on a curve indicates that the change in score is statistically significant. $P < 0.05$.)

In both tests every member of the normal group improved with practice. In the Addition test, sixteen of the group of twenty depressives produced impaired scores during their course of E.C.T., but by a fortnight after the end of treatment all except one case produced improved scores. In the case of the Alphabet test, twelve of the twenty depressives produced impaired scores in the middle of treatment and three were still producing impaired scores a fortnight after the end of treatment.

It seems clear, then, that both these tests produce the expected learning curves with the normal people, but that on both tests, E.C.T. produces in the majority of cases not merely a depression of the rate of learning, but an actual decline in output in the middle of the course of treatment.

In both these tests the actual *performance* is slight—merely the writing of a figure or a number. The *planning* preceding this performance is the major part of the skill.

Figs. 4 and 5 show the mean scores over the four test sessions for depressive and normal groups on the *Track Tracer* in respect of speed and accuracy. Fig. 6 shows similar results for the *Peg Board* test.

In the *Track Tracer* test each member of the normal group increased speed over the sessions which tended to be at the expense of accuracy. Not only did every member of the depressive group also increase speed at session II, but seventeen of the twenty depressives increased their accuracy also.

In the *Peg Board*, where speed is the only consideration, both normal and depressed groups produced the expected learning curve. In the latter group seventeen of the twenty depressives increased speed at session II.

Fig. 7 shows the mean scores for depressive and normal groups on the *Morris Wheel* test. Nineteen of the twenty depressives increased speed at session II. These results show clearly that the *Morris Wheel* measures what appears to be a constant in normal people, but one that increases in depressives after E.C.T. and which tends to remain unchanged later.

Retentivity

Figs. 8, 9, 10, 11, 12 and 13 show the mean scores for depressive and normal groups on the *Picture Questionnaire*, *Picture Description*, *Design Recall*, *Tachistoscope*, *Names Recognition* and *Story Recall* tests.

From these it appears that E.C.T. impairs retentivity in all except the *Picture Description* and *Tachistoscope* tests. In the latter test treatment seems to remove the learning that would otherwise have occurred. Fig. 14 shows diagrammatically the results of the *Picture Recognition* test.

It is clear that the ability to retain material such as the story, is grossly impaired by E.C.T.—and this is, of course, well known clinically. The results also suggest that material seen for the first time before the beginning of a course of treatment is better retained than material seen during or shortly after the end of a course of treatment.

DISCUSSION

Clinical characteristics of the group tested

As results for one nosological category cannot necessarily be taken to apply to another, it is necessary to remember that the group tested consisted mainly of patients showing the symptoms of moderately severe depression who were in need of hospitalization. These responded well to E.C.T. and were discharged from hospital in about two months. They showed few outward signs of retardation and were above average in intelligence. None exhibited any signs of thought disorder or organic impairment.

Mood

The most obvious and striking change in most depressed patients after electro-convulsive therapy is their alteration of mood. They move more quickly, they smile, they become talkative and optimistic and their whole attitude to life appears to have altered. Although often still present, their unpleasant thoughts have now lost their potency. Within

these changes of mood must be included changes of motivation, for these two factors are interrelated.

This change of mood and motivation must always be remembered when discussing other psychological changes produced by E.C.T.

of memories rather than the assimilation of events which are to be memorized'. Is this hypothesis supported by the results of the investigation?

There seems no doubt that E.C.T. produces a temporary impairment of the ability to

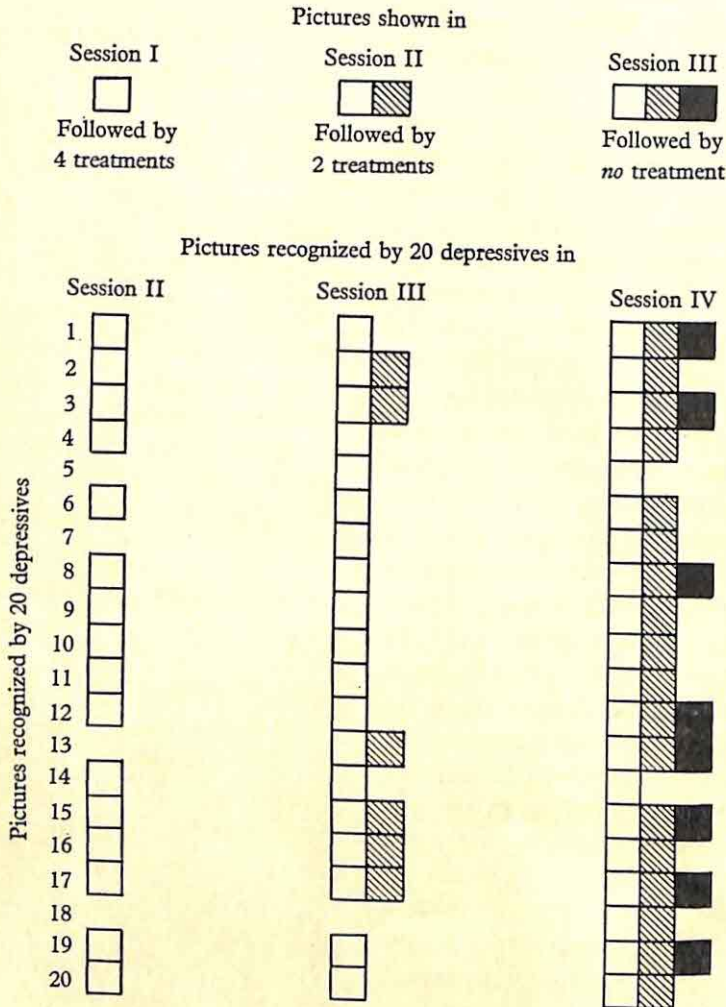


Fig. 14. Picture recognition test.

Although it would probably be unfruitful to assign the roles of cause and effect to these various changes, it should be noted that they happen at the same time.

Retentivity

The first hypothesis advanced was to the effect 'that E.C.T. prevents the consolidation

assimilate material for recognition or recall immediately afterwards. This was shown in the Design Recall test, the Picture Questionnaire test and the Names Recognition test.

In the Tachistoscope test, E.C.T. appeared to obstruct the learning that would otherwise occur. When the patients had to answer questions about a picture they had just seen, E.C.T. reduced their score, although it did not

do so when they were asked to describe a picture. This is of special interest, since the normal group found the pictures shown at sessions II and IV were more difficult to describe than those shown at sessions I and III. It seems that in this form of recall the difficulty of the picture had little effect on the amount of material produced by the depressives, and that the amount of material available for recall was restricted.

In the Story Recall test there was, as expected, a massive loss of material. The Picture Recognition test provided several most interesting observations. Many of the patients were able to recognize the first picture in session II and to remember that they had seen it in the previous session. A few patients, however, although they recognized it successfully, had no idea where or when they had seen it. One patient thought that she had seen it up in the hospital somewhere, and another patient thought she had seen it in a public gallery before entering hospital. The latter might be a case of ante-dating of memory described by Williams & Zangwill (1950). At the third test session patients were usually perfectly able to recognize the first picture which they had seen twice before; but were less able to recognize the second picture. In the final session, the first picture was universally recognized, the second picture was recognized by all but two people, but only eight of the twenty cases recognized the third picture. It might be argued that this was a result to be expected on grounds of frequency of impression, and because pictures seen later had to compete with those seen earlier. There are several reasons why this does not appear to be the case. First of all, when this test was given to ten nurses at weekly intervals, they had no difficulty whatever in selecting the right pictures, nor did they have any doubt as to when and where they had seen them, and in which order. They all appeared to know which picture to look for in each series of six presented to them. Secondly, although it is true to say that, for example, in the last session the first picture had been seen three times before, it had only been presented

once with the definite instruction that it should be memorized. In the other two sessions it had been presented amongst five others and no special attention had been drawn to it. That the deficit in consolidation on session III is very real was well demonstrated by the following case:

Man, aged 56, medical practitioner

This patient insisted on leaving three days after his final treatment. He was therefore given sessions III and IV on consecutive days. At session III he was presented in the normal way with pictures 1 and 2 mixed up with others, and successfully recognized them. He was also shown picture 3 for 45 sec. and asked to describe it. This he did very efficiently.

The next day at session IV he was presented with each of the pictures in turn, mixed up with five others. He successfully recognized pictures 1 and 2, but completely failed to select picture 3, although he had seen it only the day before and had produced a good description of it. He had, of course, had no treatment between the two sessions.

The temporary deficit during E.C.T. on some of the tests for immediate recognition and recall would indicate that assimilation is partially affected, although the Picture Description test shows that some patients are tolerably well able, during a course of E.C.T., to describe a picture they have just seen. The removal of learning effects by E.C.T. in the case of depressed patients doing the Tachistoscope repeatedly, suggests that consolidation may be affected. However, it is the results of the tests for recent recognition and recall which best show that *the efficiency of consolidation—the efficient permanent recording of events—is mainly affected by E.C.T.* This inadequacy (or reduced efficiency) of consolidation seems to make the material inaccessible. In any case, it seems that it is at the stage of consolidation that the chief impairment occurs. This seems to accord very well with what is observed in post-concussive states (Russell & Nathan, 1946; Russell, 1948).

Our first hypothesis then, seems to receive some support from the test results.

Output and retardation

Our second hypothesis was to the effect 'that with depressed patients, E.C.T. temporarily produces or increases psychic retardation, and at the same time reduces or abolishes motor retardation'. This must now be examined in the light of the test results.

It seems abundantly clear that in the tests involving thinking or planning, output of work was temporarily reduced by electrical treatment, while output of work in the tests involving doing or performing was increased by E.C.T. One of the tests, the Track Tracer, involved a measure of accuracy as well as speed, and the patients became more accurate as well as faster during treatment. This indicates that the increase in speed was not merely at the expense of accuracy (as in the group of normal subjects), but that it reflected a genuine improvement in performance. Although retardation was not always evident clinically, the Morris Wheel seemed to indicate that retardation was probably present to some extent in most of the patients, and was later removed by E.C.T.

To account, then, for the differential effect of E.C.T. on planning and performance, it seems necessary to assume that psychic and motor retardation are independent functions separately affected by treatment. Our second hypothesis is, then, also supported by the test results.

The results of the investigation also provide support for our earlier suggestion that the therapeutic effect of E.C.T. may partly depend on the fact that psychic retardation, inadequate consolidation of memory traces, and restriction of available memory material on recall, which are all produced by the treatment, counteract the 'constant surge of thoughts'. The depressive or anxious mood is thus deprived of material from the immediate past and the vicious circle of depressive mood and thought is interrupted. At the same time the increased motor acceleration makes the patient more efficient in his ordinary daily tasks. This in turn increases his self-confidence

and contributes to his change of mood. Corresponding changes in his physical condition, mediated by the vegetative nervous system and probably produced by a direct effect of E.C.T. on the hypothalamic centres (Roth, 1951), act in the same direction.

SUMMARY

Thirty psychiatric patients who were suffering from moderately severe depression were given batteries of psychological tests designed to assess their efficiency on tasks involving either mostly planning and little performance, or mostly performance and little planning. A number of tests of retentivity were also used, designed to assess assimilation and consolidation in so far as these could be inferred from immediate and recent recognition and recall. These tests were given on four different occasions; once before the beginning of treatment, again in the middle of the course, for the third time two or three days after the end of the course, and for the fourth time about ten days later.

The patients were given standard current E.C.T. on alternate days in a course of six treatments. The ages of the patients ranged from twenty-nine to fifty-six. They were above average intelligence and had no thought disorder nor organic complications. Each test was also given to groups of normal untreated people, four times at weekly intervals.

In the case of the normal groups, the expected practice or learning effects occurred over the four test sessions. In the case of the depressive groups, however, there was a clear dichotomy between those tests involving mainly performance which were all improved by E.C.T., and those involving mainly planning or retentivity, which were all temporarily impaired during treatment.

Our conclusions can be set out as follows:

(1) In the group of patients studied, E.C.T. produced:

(a) Temporary reduction in the output of mental work.

(b) An increase in the output of muscular

work which was probably greater than could be accounted for by practice effects.

(c) A decrease in motor retardation.

(d) Some temporary impairment in the ability to recall and recognize material seen immediately beforehand, and a more marked impairment in the ability to recall and recognize material seen after the beginning of a course of treatment and recalled or recognized one day or more afterwards.

(2) These results suggest that:

(a) Depression is associated more with motor than with psychic retardation; and that E.C.T. temporarily produces or increases psychic retardation, at the same time removing or decreasing motor retardation.

(b) E.C.T. obstructs the consolidation of memories by making them inaccessible.

(c) The therapeutic effect of E.C.T. may partly depend on the fact that it temporarily slows up the flow of thought and obstructs the consolidation of memories, and at the same time increases the speed with which the patient can perform practical daily tasks.

ACKNOWLEDGEMENTS

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STUDIES OF PERCEPTION IN SENILE DEMENTIA CUE-SELECTION AS A FUNCTION OF INTELLIGENCE*

By MOYRA WILLIAMS†

It has long been recognized that the study of behaviour in the clinical setting may throw light on some of the factors influencing normal mental mechanisms, since functions which cannot be studied selectively under normal conditions often break down in a circumscribed manner as a result of brain injury or disease, allowing their component aspects to be recognized more easily.

Despite the considerable amount of study which has been devoted to the breakdown of intellectual behaviour in the organic dementias, however, the findings of clinical psychology in this sphere seem to have had little impact on academic concepts of intelligence. This may be due, in part, to the manner in which the findings have been presented. Before a comparison between the behaviour of demented with that of rational individuals can throw much light on the nature of the disturbance caused by disease, it is necessary to ensure that the groups under comparison are similar in all other respects. Thus, just as Rylander (1939), when assessing the functions of the frontal lobes took the precaution to ensure that each subject being tested was compared with a comparable individual as control, so when assessing the dementias accompanying senility (the largest and most frequently studied group of organic dementias), it is important that the control group shall consist of individuals matched with those under investigation for age as well as social standing. Wechsler (1939) and Welford *et al.* (1951) have discovered that many changes in mental activity and behaviour

occur with increasing age, but not all old people are demented. As Grewell (1953) points out, a woman of eighty-four may not be as spry as one of twenty. She may be forgetful and she may not always be able to give the exact date, but compared with a patient suffering from senile dementia she may be an extremely rational and well-preserved person, taking an interest in current events, a pride in her appearance and showing a sympathetic attitude towards her neighbours. It is in the difference between the behaviour of a person such as this and a dement in the same age-group that some indications of the factors in intelligence may be sought.

A second possible reason for the failure of clinical psychology to throw light on the mechanisms of normal intelligence may lie in the tests used in the former study. Tests based on a measure of the 'scatter' between the abilities lost and retained by a given individual (Babcock, 1933; Wechsler, 1939; Shipley, 1940) can have little clinical significance, for as pointed out by Grewell (1953) dementia usually strikes many abilities at the same time. Thus although a 'Vocabulary—Other Test' discrepancy may reflect impairment in certain spheres of mental activity, it does not necessarily reflect the loss of ability as understood by the term dementia. In fact, according to Grewell, the vocabulary usually remains relatively constant '*until dementia actually comes into existence*'; then the vocabulary is impaired too' (p. 314). A similar observation has been made by Brody (1942).

As opposed to this, acquired habits have a great persistence even in true dementia, so that a mentally deteriorated waiter can still serve drinks, a demented accountant can still add, and a former carpenter, who is incapable of

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looking after himself, can continue to use his tools with skill.

The type of test devised to measure intellectual impairment by Halstead (1947) may have considerable application in the study of those cerebral functions accompanying intelligence, but they throw little light on the psychological mechanisms concerned. Sorting and grouping tests of the type popularized by Goldstein & Scheerer (1941), on the other hand, are difficult to score quantitatively and in themselves throw little light on the reasons for success or failure in test performance.

This last objection may also be brought against projection tests like the Rorschach as a means of studying the organic dementias. Although interesting, it is not very illuminating to know that an organically deteriorated patient is unable to interpret structureless blots. Some hint would also be welcomed as to the possible causes of the failure as well as to its existence.

It appears, therefore, that before clinical psychology will be able to fulfil a function other than diagnosis and afford insight into the nature of the mental mechanisms concerned, a different approach to the material is required. It is suggested that when planning this, the following principles might be followed:

(1) Tests used in clinical practice should be based on preliminary clinical observation of the patients under consideration and applied later to matched controls. This is likely to throw more light on the mental activities lost and retained than the practice of giving to mentally deranged patients tests originally standardized on normal subjects.

(2) Attention should be focused on the measurement of the *conditions* associated with success or failure on the tests, as well as on the measurement of the end-performance. This approach has the additional advantage that it may suggest means by which the defects themselves may be counteracted by manipulation of the environment.

Some preliminary experiments in which this approach has been tried out on a group of

patients suffering from senile dementia are reported in the present paper. The number of cases in each experiment is small, so that the results should only be regarded as suggestive. However, it is felt that they are promising enough to encourage further work along the same lines.

In view of the fact that many people over sixty-five are handicapped in their actions by physical disability, it was decided to start the investigation by a study of the response to perceptual stimuli in these subjects. Although abnormalities in this sphere of mental activity have been noted previously in senile dementia, they do not appear to have received very serious consideration except by Hirsch (see Jones & Kaplan, 1945). Most frequently those defects which have been observed in visual recognition or in the manipulation of perceptual data have been attributed to other factors, such as emotional lability (Boyd, 1936) or memory defects (Welford, 1951). Even those defects noted on visual-motor tests of the type used by Bender (1938) allow for many different interpretations. Moreover, the slowing up of recognition of tachistoscopically exposed figures which has been found to occur with increasing age in normal subjects suggests that perceptual defects may not denote confusion or dementia (Price, 1931).

Nevertheless, the restricted responses to environmental stimuli which may be noted clinically in intellectually deteriorating patients together with the errors they commit on tests involving perceptual material suggest that this is a field which might repay further study.

In the present investigation, two questions were specifically put forward for consideration:

(i) Do demented patients differ in their response to perceptual material from other subjects of the same age?

(ii) If so, under what conditions do these differences appear?

The tests devised to investigate these points were not aimed to have any diagnostic value. It was hoped that if answers to the above questions could be found, some of the factors responsible for the difference between the

behaviour of rational and demented subjects in the higher age-groups would be clarified, and from these findings that some light might be thrown on perceptual mechanisms in intelligence itself.

I. DIFFERENCES IN THE RESPONSE TO VISUAL MATERIAL BETWEEN RATIONAL AND DEMENTED SUBJECTS IN THE OLDER AGE-GROUPS

Experiment I

This experiment was carried out to determine whether a difference existed between rational and demented subjects of the same age in their response to poorly structured visual material.

Subjects

The subjects taking part were all patients from the United Oxford Hospitals Geriatric Unit at Cowley Road Hospital, aged between sixty and eighty-nine. Twelve subjects suffering from mental confusion and twelve rational, well-orientated and fully alert subjects matched with the above for age, sex and length of hospitalization were selected. In choosing the confused subjects care was taken that only those took part who were alert, physically fit and able to carry on a reasonably coherent conversation, but who were yet disorientated for either time or place and out of touch with recent world events. No subject was included who had been unable to name four simple pictures of animals. This precaution was taken and the preliminary test carried out to exclude the possibility of defects noted in the recognition of test material being due to defects of either speech or vision.

Material

The test material consisted of six sets of ink sketches, each of which progressed through nine stages from an indefinable ink-blot into the silhouette study of a common animal. The material, which has previously been used to assess memory functions, has been illustrated

elsewhere (Williams, 1953). Similar samples are demonstrated in Fig. 1.

Procedure

Each subject was interviewed individually, and was shown the first picture in one of the progressive series. It was explained to him that as the pages were turned, the pictures would begin to resemble an animal. He was to say, as soon as he could guess, what animal the pictures were going to represent, or if he preferred, to say what each picture looked like as it was shown to him. He was allowed as long as he liked to scrutinize each picture and any responses were recorded verbatim.

Scoring

The pictures in each series were numbered from 1 (least like) to 9 (most like). The picture which first elicited from the subject mention of the correct animal—even if only given as a guess—was taken as the point of recognition of this series.

Results

The mean points of recognition for each group and their standard deviations are given in Table 1. It will be noted that the confused or demented subjects tend to recognize the picture at a much later stage than the rational ones, and that this difference is significant by the 't' test.

Table 1

Subjects	Mean recognition	S.D.	Value of 't'
Control	6.4	1.7	3.4 ($P < 0.01$)
Demented	7.9	0.85	

Experiment II

A second experiment was carried out to determine whether there were significant differences between the response to the figures by well-orientated subjects in the different decades over fifty.

Subjects

Twenty-four patients from the Cowley Road Hospital (six aged 50-59, six aged 60-69, six aged 70-79 and six aged 80-89), all of whom were rational, alert and well orientated, were given the same test as that used in Exp. I.

Results

The mean point of recognition for each group of subjects, and its standard deviation, are given in Table 2. It will be seen that the mean point of recognition of subjects over sixty is higher than in the youngest age-group tested, but the differences are not statistically significant, nor do they vary progressively with age.

Table 2

Age group	Mean recognition	S.D.	Value of 't' compared with group 1
50-59	5.6	2.38	—
60-69	6.3	1.73	<1
70-79	5.8	2.56	<1
80-89	6.8	1.41	<1

Conclusion from Experiments I and II

It appears that a difference exists between confused and rational subjects in their ability to recognize poorly structured visual material. The mentally confused or deteriorated patients need more cues than do their rational contemporaries before they are able to recognize similar visual material. This difference appears to be largely independent of chronological age, as such.

II CONDITIONS ASSOCIATED WITH PERCEPTUAL DIFFERENCES BETWEEN RATIONAL AND DEMENTED SUBJECTS

A. INCREASE IN THE NUMBER OF CUES BY PRELIMINARY ORIENTATION

Experiment III

An experiment was carried out to determine the effect of 'mental set' or orientation on the number of cues necessary for the recognition of visual material.

Subjects

Twelve confused patients and twelve matched controls in the same mental and physical state as those who had taken part in the previous experiments were selected from among the patients at Cowley Road Hospital.

Material.

Three new sets of figures were drawn (see Fig. 1). The principle of successive approximations and the number of stages were the same as in the other series, but the new figures turned into pictures of common objects (a tea-pot, an umbrella and a key) instead of animals. Together with these new series, a sheet of paper was prepared on to which were copied the final drawing of each series.

Procedure

Each subject, having been asked whether he would take part in a test of visual recognition, was shown the sheet bearing the pictures of the animals represented in Exp. I. After naming these, he was shown the first figure in one of the new progressive series, and was asked to guess as the pages were turned over what *animal* he thought the figures would finally represent. It was hoped in this way to induce in the patient the wrong orientation towards the outcome of the series.

Before presenting the second series, the subject was told that the pictures on this occasion were not necessarily going to represent animals. He was only to say as before what he thought the pictures were most like. On this occasion it was hoped that his orientation would be neutral.

After completing the second series of figures, each subject was shown the sheet of paper bearing duplicates of the final pictures, and was asked to look carefully at and name each one. The third series of figures was then presented to him as before. It was hoped that his recent perception of the final figure of the series would have given him the correct orientation towards its recognition.

Care was taken to ensure that each picture was presented as many times to each group of subjects with wrong, neutral and right orientation. The points of recognition were scored as previously.

Results

The mean point of recognition for each group of subjects under the different conditions is shown in Fig. 2. It will be seen that as before the confused subjects tend to recognize the figures at a later stage than the control group under all conditions, and, moreover,

aroused, they nearly always denied that they had seen anything like the figures before.

B. SIMPLIFICATION OF CUE-DISPLAY

Experiment IV

This experiment was carried out to investigate the effect of focusing attention on the additional cues by restricted display.

Subjects

Twelve subjects from the Cowley Road Hospital, aged 70-85, who were mildly demented and amnesic to the extent that,

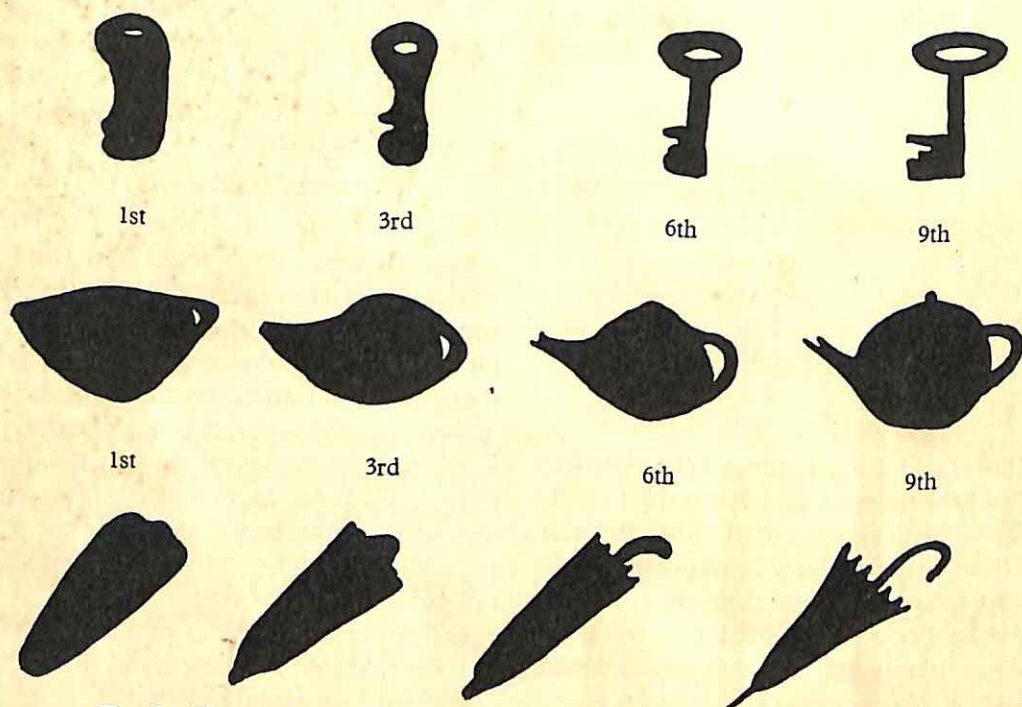


Fig. 1. Samples from the progressive sketches used in Experiment III.

that both groups of subjects are seriously influenced by the orientation previously aroused, but that when the wrong orientation is aroused in the control group their performance is at almost the same average level as that of the confused patients with neutral orientation.

Although the confused patients invariably showed some effect of the preliminary orientation in their reactions to the ambiguous figures, after correct orientation had been

although able to carry on a rational conversation at a rather limited level, they were unable to care for or occupy themselves in a normal environment, took part in the experiment.

Material

The same progressive series of animal pictures were used as in Expts. I and II. In addition, the final picture from each series was reduplicated on to a small white card.

Procedure

Each patient was interviewed separately and was presented with a board 12×9 in., at the bottom of which were two or four of the cards bearing the pictures at the end of the progressive series. Above these was exhibited the first figure from one of the progressive series, the final representation of which would be identical with one of the models below. The subjects were first asked to name the cards at the bottom of the board, and it was then explained to them that as the pictures at the top of the board were turned over, these would gradually come to resemble one of the cards. The subject was to say as soon as he could, which of the pictures the ambiguous series would represent.

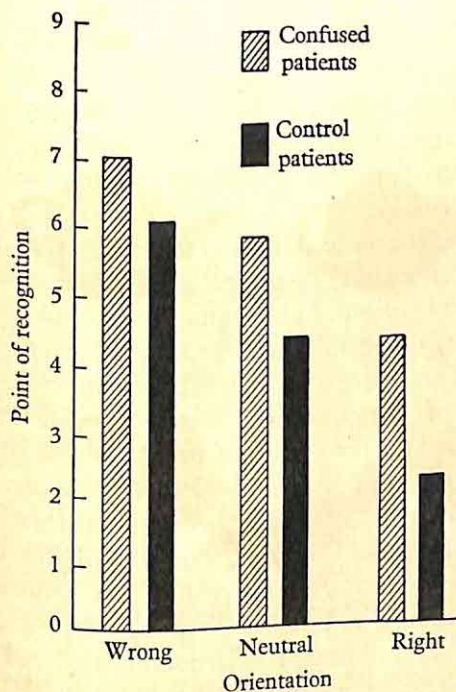


Fig. 2. Showing the mean point of recognition for poorly structured figures among confused and normal subjects with the right and wrong preliminary orientation. Experiment III.

Although some of the subjects had difficulty in grasping these instructions, it was found that by continual prodding and prompting ('Is this one up here more like this one down here, or

this other one down here?'), it was possible to gain their co-operation.

Care was taken to ensure that each set of ambiguous pictures was presented as many times when there were only two alternatives to choose from at the bottom of the board as when there were four.

Scoring

In the earlier experiments, a subject had been credited with recognition of the ambiguous figure as soon as he mentioned the object or animal it would finally represent. In the present experiment, due to the possibilities of perseveration and fluctuation, credit for recognition was only given when there was no further deviation from the right response. Thus in the following sample series of responses:

(Nature of series—Cat)

- Stage 1. 'Cat'.
- Stage 2. 'Cat'.
- Stage 3. 'Now I think it's going to be the dog.'
- Stage 4. 'I'll still say dog.'
- Stage 5. 'No, I'll say cat again now.'
- Stage 6. 'Yes, obviously the cat.'

The point of recognition was taken at stage 5, although 'Cat' had been mentioned at stages 1 and 2.

Results

The distribution of the points of recognition from all twelve patients, when faced with the possibility of two or four models to choose from, is shown in Table 3. It will be seen that the distributions are very different. When the choice lies between two models only, there is a tendency to recognize the figures earlier than when the choice lies between four alternatives. This, in itself, is not surprising, for the possibility of being right by chance alone when there are only two alternatives is greater than when there are four. However, the discrepancy between the distribution of the responses in the two different conditions cannot wholly be accounted for on the basis of chance. In the previously reported experiments it was found

Table 3

Point of recognition	Choice between 2 models	Choice between 4 models
9	2	2
8	—	3
7	1	3
6	2	3
5	—	1
4	1	—
3	2	—
2	2	—
1	2	—
Total no. responses	12	12

Subjects

Twelve confused and twelve rational patients aged between sixty-five and eighty-five were selected from Cowley Road Hospital.

Material and procedure

The task assigned to them was to complete the designs shown in Fig. 3 with small black and white draughts on a plain buff board. Each test was given under two conditions: (1) completion; the subject was asked to place one draught in the gap indicated; (2) continuation; the subject was asked to place one draught at the end of the line in front of him. The places to be filled by the subject are marked in Fig. 1 with a blank square; in the experiment itself, the place on the board was merely indicated by the examiner with a finger.

Before the beginning of the test itself, the subjects were shown examples 1 and 2 and were asked to complete these, with assistance if necessary. Curiously enough, both groups of subjects appeared to find these much harder than Test A.

It will be noticed that the tasks in A, C and D are all the same. To solve them involves merely the realization of alternating black and white single draughts. In each test the subject has to select and place one draught on the appropriate colour in the position indicated. The difference between the tests lies only in the complexity of the background against which the test is carried out. Whereas in task A there is no distraction, in tasks B and C there is some disturbance due to the presence of other lines. The same difference applies to tasks B and E. The tasks are the same, although E is complicated by the presence of background distraction.

Scoring

The subjects' responses to each task were scored only as right or wrong. Characteristics of behaviour and the nature of the mistakes made were, however, noted as well.

Results

The proportion of correct responses made by each group of subjects on each test is shown

that the mean point of recognition among these subjects for the ambiguous figures when the choice of models was unlimited was 6.5. When the choice of models is limited to two, it might be expected that half the subjects, i.e. six, would score below this point by chance alone. When the choice is limited to four, a quarter of the subjects, i.e. three, could be expected to score below by chance alone.

The figures in Table 1 indicate that 0.75 or considerably more than half the number of subjects score below 6.5 when presented with the choice of two models, but only 0.26 or the chance expectation do so when the choice is extended to four.

These quantitative findings were confirmed by observation of the patient's behaviour. When presented with the choice of two models, the patients were able to grasp the object of the test to some extent and to keep their minds on the problem. When presented with the four models, they appeared bewildered and perplexed and had great difficulty in co-operating at all. The concept of 'matching', and particularly that of 'matching for the future', seemed to be beyond them, and they were inclined to resort to naming each picture in turn without any concept of the task which had been set.

Experiment V

This experiment was carried out to investigate the effect of restricted cue-display on a task involving adaptive behaviour.

in Table 4. It will be noted that the rational subjects found little difficulty with any of the tests, the only mistakes made being due to occasional lack of concentration. The confused subjects experienced little difficulty with test A (only one mistake being recorded in twenty-four trials), but in tests C, D and E they only produced the correct responses in about half the number of trials. As there was a possibility of giving the right response by chance alone in half the cases, the correct responses to tests C, D and E could all have been accounted for by chance. Correct responses were given to B more often than to C, D and E, but not so often as to A.

Table 4

Proportion of right answers

Test	Confused patients	Rational patients
A	0.95	0.95
B	0.73	0.87
C	0.45	0.95
D	0.45	0.92
E	0.41	0.84

The values of χ^2 for these differences and for the differences between the rational and amnesic subjects under all conditions are shown in Tables 5 and 6. It will be seen that among the confused subjects, the difference between the correct responses to A and to C and D (where the same problem was presented against a different background) is very large; that between B and E (where again the same problem is given against a different background) is also significant. There is no difference between the number of correct responses to tests C and D, nor between the tests given as tasks of completion or continuation.

The difference between confused and rational subjects only becomes significant on the tests C, D and E, i.e. where the task is complicated by the addition of background distraction. However, the rational subjects, unlike the confused ones, tended to make more mistakes when the test was given as one of continuation than when it involved only completion of the pattern.

In their general reactions to the tasks and the type of errors they made, the confused patients showed great individual variation. Persevera-

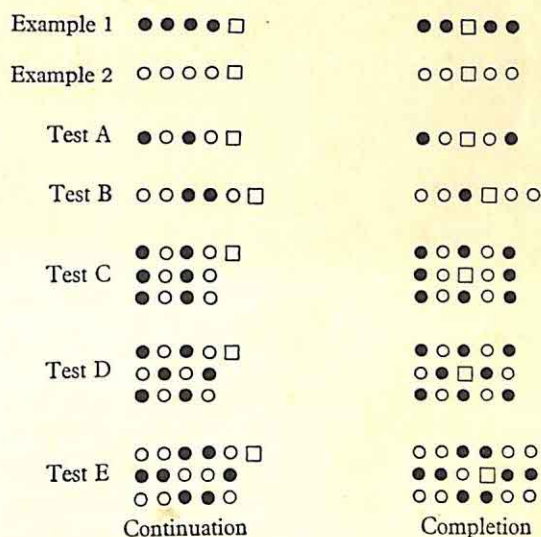


Fig. 3. Designs to be completed by subjects in Experiment 5.

Table 5

Test	χ^2
A	<1
B	1.84
C	15.5
D	15.5
E	10.3

The value of χ^2 for the difference between the distribution of right and wrong responses in Exp. V of the rational and confused subjects.

Table 6

Conditions under comparison

Group	A:C and D	B:E	C:D	Cont.: Comp.
Confused	10.8	4.6	<1	<1
Rational	<1	<1	<1	2.38

The value of χ^2 for the difference between the distribution of right and wrong responses in the different tests.

tion was noted in a few instances and some patients showed a tendency to pick up and play with the draughts already arranged in front of them instead of continuing or

completing the existing arrangement. In general there was a tendency when faced with a complex task to try to escape from the whole situation, but the manner in which this was done varied with the different individuals. One patient insisted that it was time she went home, another that tea would be ready and that she should help to serve it. Lesser degrees of the same tendency were seen in a misrepresentation of the task. Thus one patient, when asked to complete a difficult pattern, would take up the first draught she saw, place it at the end of the line, and say, 'We'll make it a full stop then'. Another merely placed on top of each arranged draught another of the same colour.

That such reactions were related to the psychological demands of the situation and not to fatigue were shown by returning to tests A and B again at the completion of the test series. The patients' responses on these occasions are not shown in the general results, and were elicited only to ensure that the earlier correct responses to these tests had not been due to luck.

For some reason, examples 1 and 2 seemed to be very much harder to most patients, rational and confused, than test A. The principle of 'All black' or 'All white' was harder to grasp than that of alternating black and white. When asked to continue with the examples of their own accord, many patients placed a draught of the opposite colour to those already in line, saying that they thought a change would be nice, and some even took out the alternating same-coloured draughts to replace them with opposite-coloured ones.

Conclusions from experiments III to V

The results of these experiments indicate that abnormalities noted in the reaction of patients suffering from senile dementia to visual material can be reduced, at least in certain settings, by the provision of additional cues, by preliminary orientation and by the simplification of the setting in which these are presented. Under such circumstances, it may be found that subjects, who otherwise behave irrationally, are capable of reacting in a fitting and acceptable manner.

III DISCUSSION

The conditions associated with response to visual stimuli which have been singled out for investigation here are clearly not the only ones which affect the reactions of patients suffering from senile dementia. No one who has spent any prolonged period with these patients, or whose task it has been to see that they are maintained in physical health and comfort, can have failed to realize that cues may be given to them in a number of different ways—such as by repeated repetition of orders, visual example, etc.—and that through the provision of these cues the patient's behaviour can often be maintained at a level conforming with the demands of society. The method of cue-giving studied here (i.e. preliminary orientation and simplification of cue-setting) were selected mainly because it was felt that if their influences could be satisfactorily demonstrated they might be put to considerable practical application.

The chief interest arising from the present experiments, however, appears to be the finding that the performance of a patient suffering from senile dementia could be brought to the normal level of a rational subject on tests of perception, and even of intellectual activity, if he is supplied with sufficient additional cues or if his attention is focused on those normally available, whatever the means employed to these ends. Hence it may be argued that what the demented patient lacks is not so much the ability to behave in a fitting manner as the ability to select from his environment the cues to tell him what is fitting. It is not so much that he is unable to receive information through his senses, but that he is unable to select or abstract from all the information available that which is relevant.

This statement is not intended to imply that patients suffering from senile dementia are really as capable as others. Capability and efficiency, being the measures of what an individual can do under given circumstances, are clearly very much impaired in the patients studied here. However, further insight into the

nature and causes of this deficiency are likely to come, not so much from measuring its extent as from studying the conditions affecting it.

Lack of abstraction in organic dementia has already been noted by Goldstein (1939), but this author includes in the same term behaviour of a much more complex nature than that studied here. Thus Goldstein's 'abstract attitude' includes the ability to see relationships between two or more objects; in the tests used here the subject was only asked to deal with single items such as one line of draughts or one picture. Again Goldstein's abstraction frequently involves planning for the future. In most of the present tests, the future is largely irrelevant, the task being confined to matters here and now. It seems likely, on further consideration, that the function which has been called abstraction by Goldstein may turn out to be composed of many different intellectual acts, one being that of cue selection.

From its absence in dementia, it may follow that cue selection is one important aspect of intellectual activity in general. Although there is clearly no reason to suppose that it outweighs other functions in importance, it appears to be one which might well repay further study in

normal as well as abnormal individuals, and which might even be developed by those interested to form the useful basis of a test for intelligence itself.

SUMMARY

Some experimental studies are reported in which the response to visual stimuli of patients suffering from early senile dementia was compared with that of mentally normal patients of the same age.

It was found that confused and demented patients were unable to name ambiguous pictures as well as their rational contemporaries unless additional cues were provided. These could be given in the form of preliminary orientation or by contemporary exhibition, but were only effective if given in a simplified setting.

The effect of cue-display was also demonstrated on a task of pattern-completion.

The influence of these findings in theoretical concepts of intelligence is discussed briefly.

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OBSESSIVE-COMPULSIVE BEHAVIOUR: PROBLEMS OF RORSCHACH DIAGNOSIS AND CLASSIFICATION

By J. G. LYLE*

There are a number of signs or samples of behaviour on the Rorschach which seem logically related to obsessive-compulsive behaviour:

List A

- (1) Over-controlled emotionality; lack of emotional spontaneity (high $F\%$).
- (2) Over-preciseness (high F plus $\%$).
- (3) Over-elaboration of details ('quality ambition').
- (4) Over-production (high R) ('quantity ambition').
- (5) Preoccupation with unimportant details at the expense of the larger problem ($dd!$, $de!$, Do).
- (6) Obsessive vacillation between two equally possible percepts.
- (7) Obsessive doubt as to the exactness or adequacy of the percept.

During six years of diagnostic testing in a psychiatric clinic I have frequently observed all of these signs, but *never in a person who presented symptoms of obsessive-compulsive neurosis*. I have found that in groups of clinically normal final-year University students signs 2, 3 and 4 occur frequently. Many of these signs appear in records of hysterical or paranoid patients. But of the patients referred to me as 'classical examples of obsessive-compulsive neurosis' none has produced the sample of Rorschach behaviour listed above.

Two possible reasons for this discrepancy immediately come to mind:

- (a) It is possible that the Rorschach technique is invalid for the diagnosis of obsessive-compulsive neurosis.

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- (b) It is possible that the classification obsessive-compulsive neurosis is invalid (i.e. is not a stable or homogeneous entity).

Is the Rorschach valid for the diagnosis of obsessive-compulsive behaviour?

As far as the signs, or behavioural samples, in List A are concerned, it seems that obsessive-compulsive behaviour on the test does not correspond with neurotic symptoms in obsessive-compulsive patients.

It is of course possible that signs other than those listed may differentiate an obsessive-compulsive group from a group of normals or other neurotics. This is in fact what Rapaport (1948) discovered. Rapaport's findings suggest that a high proportion of movement responses (indicating a strong fantasy life) and fabulized ('subjective, affect-laden', autistic) responses distinguish the obsessive-compulsive neurotic group.

Only one of his signs—good form level ('new F plus $\%$ ')—bears a resemblance to any of behavioural samples listed in List A (i.e. sign no. 2). Even then he does not specify *over-preciseness*, and admits that the difficulty in differential diagnosis is in separating obsessive-compulsive patients and 'well-endowed normals'.

It may be then that Rapaport's (1948) criteria will differentiate obsessive-compulsive neurotics as a group;† but the list of behavioural samples at the beginning of this article seems to be more obviously related to compulsive behaviour than do his criteria. Why

† This has not been statistically established. Rapaport's groups were too small and there was considerable overlap with other categories. His criteria reflect emotional control by intense mental activity.

is it that obsessive-compulsive patients do not behave compulsively on the Rorschach; or conversely, why should some non-obsessional patients or non-clinical persons behave compulsively on the Rorschach.

Rapaport himself ponders this question and decides that 'the compulsive character has broken down' by the time neurotic symptoms have appeared. It appears then that a 'compulsive character' may behave compulsively on the Rorschach, but when these defences break down and he develops compulsive neurotic symptoms, he ceases to behave compulsively on the Rorschach. This seems to lead us to the paradoxical conclusion that the more compulsive the person the less likely he is to behave compulsively on the Rorschach.

There are two interpretations which could resolve this impasse. It could be said that when a compulsive character has 'broken down', some other sort of mental state is operative; or that the neurotic symptoms serve to reduce the tension experienced by the obsessive-compulsive character, and so these signs of tension in the Rorschach are eliminated.

But whatever the interpretation, it seems that obsessive-compulsive behaviour on the Rorschach does not correspond to the symptomatology of obsessive-compulsive neurosis, though it may correspond with the behaviour of obsessive-compulsive characters. (The distinction will be clarified later.)

Is the classification obsessive-compulsive neurosis valid?

A list of 'compulsive' symptoms gleaned from clinical literature will include the following samples of behaviour:

List B

- (1) Compulsive rituals (e.g. hand-washing rituals).
- (2) Obsessive fear of dirt and germs (usually accompanied by cleansing and tidying rituals).
- (3) Obsessive fear that patient may harm someone (usually accompanied by precautionary rituals).

(4) Compulsive need to count, or repeat verbal formulae.

(5) Obsessive rumination about trivial or irrelevant matters.

(6) Compulsive drive to work, or to busy self in some activity.

(7) Compulsive attendance to detail, often at the expense of the broader, more important aspects of the task.

(8) Compulsive adherence to high standards of work, or morality, or to regulations.

(9) Compulsive concern for orderliness and tidiness.

(10) Compulsive pseudo-attempts at suicide.

(11) Compulsive avoidance of feared situations (e.g. of crowds) or obsessive fear of certain situations.

(12) Compulsive habits or mannerisms (e.g. tics).

(13) Obsessive concern with own health.

(14) Compulsive avoidance or obsessive fear of people.

(15) Obsessive fears of being poisoned, swindled, attacked.

(16) Obsessive doubts, vacillations and worrying.

(17) Compulsive sexual behaviour (e.g. masturbation).

(18) Compulsive aggressive or emotional outbursts (e.g. nagging or temper tantrums).

It is clear that if all of these were accepted as symptoms of obsessive-compulsive neurosis, no case could be made for the homogeneity of the classification.

The fact is, of course, that there is an element of compulsive behaviour in all maladaptive symptoms. This is known clinically as *repetition compulsion*, which refers simply to the tendency of neurotic behaviour to be repeated despite the consequent distress suffered by the patients. Maier (1949) has called it 'fixated' behaviour because it is not modified by experience. Compulsive in this sense means that the patient cannot help behaving as he does; some unconscious force* 'compels' him to express his repressed needs or conflicts in

* This is explained by the concept of tension.

distorted form. All neurotic behaviour, and much normal behaviour, is compulsive in this general sense.

But the classification *obsessive-compulsive neurosis* refers to a specific syndrome of behavioural symptoms. On List B only items 1, 2, 3, 4 (and sometimes 5) clearly belong in this syndrome. Items 5, 6, 7, 8 and 9 are usually associated with the obsessive-compulsive character. The rest belong to other classifications: 10, 11, 12 and 13 are often associated with hysteria; 14 and 15 are often associated with paranoia or schizophrenia; and 16, 17 and 18 could be associated with any classification.

The specific and general connotations of the term are unfortunately often confused in clinical usage, so that patients are often incorrectly classified as obsessive-compulsive on behavioural criteria, but show up as something quite different on the Rorschach.

This explains in some measure the frequent discrepancies between psychiatric diagnoses based on behavioural criteria and diagnoses based on the Rorschach and other psychological techniques.

In tackling the main problem, it is proposed to define further obsessive-compulsive neurosis and the obsessive-compulsive character and to clarify the differences between them.

Obsessive-compulsive neurosis refers to a specific syndrome of symptoms which includes hand-washing or other seemingly pointless ritualized behaviour; compulsions to count or repeat verbal formulae; obsessional fears of dirt, germs or of inadvertently harming somebody. The obsessions are usually accompanied by ritualized precautionary behaviour; things are sterilized several times in a certain way and food or clothing is kept elaborately safeguarded.

These obsessions and compulsions are explained in psychoanalytical theory as attempts to ward off guilt concerning unconscious sexual and aggressive wishes, or to undo or make reparation for them. Thus hand-washing rituals may symbolize a patient's perception of himself as 'dirty' because of unconscious sexual fantasies, and his attempt to undo what

was wished in fantasy and cleanse himself of guilt. (Obsessive-compulsive neurosis is said to represent a fixation at an anal level of libidinal organization, which accounts for the frequent preoccupation with dirt and germs.)

The warding-off symptoms, as distinct from the doing-undoing rituals, may or may not have symbolic significance. Such symptoms as continuously counting or doing complicated mental arithmetic, are ways of keeping more disturbing thought from the mind. Symptoms 4, 5, and sometimes 6 on List B may fall into this category.

These warding-off symptoms, like the doing-undoing rituals, are essentially diphasic in nature, reflecting the basic ambivalence of these patients. They represent an attempt to *avoid* guilt-laden thoughts and to *master* them simultaneously. Thus continuous mental arithmetic serves to avoid forbidden thoughts and to master them intellectually. However, only if these warding-off symptoms take a ritualistic form or become a major problem in a person's life, and where they concern the warding off of guilt,* can they be classified as obsessive-compulsive neurosis.

These explanations of ritualized 'warding-off' and 'undoing' ceremonies presuppose an imminent breakdown of ego defences, the ego having to institute a second line of defence against the awareness of unconscious wishes and fantasies.

* The tendency to immerse oneself in minor issues in time of stress is universal. It is a means of taking the mind off more serious problems. By mastering a simple situation we persuade ourselves that we will be able to master a more difficult situation. Hence a housewife may carefully tidy the house when worried about her husband's late homecoming. Worrying over minor problems falls within the same category. Such behaviour clearly signifies warding-off and 'binding' anxiety, not guilt, and differs qualitatively from obsessive-compulsive neurotic symptoms, though it is often so classified. It is often found in anxiety states, and usually abates as anxiety abates. However, most compulsive cleansing activities imply latent feelings of guilt.

Thus obsessive-compulsive neurosis can be said to be a *secondary* defence against the 'return of the repressed', the seemingly pointless rituals serving to avoid the guilt implicit in the precariously repressed needs and fantasies.

As further breakdown occurs, symptoms may develop which may be properly classifiable as hysteria, schizophrenia, paranoia, etc. But the confusion which exists between *general* and *specific* aspects of compulsive behaviour often serves to cloud proper diagnosis. The new symptoms (e.g. nervous tic, fear of dogs) are often misperceived as part of the *same* compulsive system.

Glover (1949) comments upon the overlapping of obsessive-compulsion with other classifications; and specifically mentions an overlapping of these symptoms in phobic, paranoid, schizophrenic and conversion-hysteria patients. The author has observed obsessive-compulsive symptoms in schizophrenic patients (hand-washing and absolution rituals, obsessive ruminations), in phobic and in conversion-hysterical patients (compulsive counting, obsessive fear of harming somebody), and in paranoid patients (hand-washing, fear of infections). And, as mentioned at the beginning of this article, I have always found Rorschach protocols of 'classical obsessive-compulsive neurotics' to resemble those of some other diagnostic category—usually paranoid and hysterical states. It is easy to see how phobias could co-exist with counterphobic avoidant rituals;* and how an ambivalent concern with *guilt* could be associated with homosexual conflicts in paranoid patients.

In summary, then, it can be stated that obsessive-compulsive neurosis classification, if not invalid, is at least less stable, less homogeneous, than other diagnostic categories,

* Counterphobic compulsion as a reaction against fear obviously differs from the guilt-avoidant mechanisms of obsessive-compulsive neurosis. It represents a warding-off of anxiety (e.g. a feeling that one must jump from a high building may represent a *reaction-formation* against a fear of falling).

since it represents a *secondary* defence against some other kind of imminent breakdown, and is often merely a transitional stage of adjustment. It is more liable to be incorrectly diagnosed than most other classifications because of the confusion between general and specific aspects of compulsive behaviour.

The obsessive-compulsive character

The best description of the obsessive-compulsive character discovered in the literature was by Wolff (1937) quoted by Lennox (1944). 'Almost all were conscientious, perfectionist, persistent, exacting, meticulous, fastidious and at the same time efficient.' Wolff describes other traits, such as 'love of order and a system of classification'. They are 'inflexible, energetic, hardworking, endowed with much energy and with a need for assuming responsibility'. They intellectualize and hold themselves aloof from social intercourse or emotional expression. (The obsessive-compulsive character may not have all these traits, but will have a number of them.)

Reference to List A (items 1, 2, 3, 4, perhaps 5) will reveal that this description parallels these samples of obsessive-compulsive behaviour on the Rorschach.* Conversely it will reveal no similarity to the ritualistic doing-undoing ceremonies in obsessive-compulsive neurosis.

Wolff's (1937 and 1940) summary is similar to the descriptions of the obsessive-compulsive character to be found throughout clinical literature. However, this description quoted was of the personality of sufferers from

* Item 5 on List A may signify an attempt to cope with the test-stimulus and yet avoid committing oneself to the major issue. This is a way of 'binding' anxiety, and is found in many different sorts of patients. But a pedantic attempt to account for even the tiny details is typical of the obsessive-compulsive character.

Items 6 and 7 List A, imply doubt, and anxiety as to the adequacy of the percept; or an anxious clinging to reality. These are problems of reality testing and so are often indicative of incipient psychosis.

migraine. (It was further remarked that sufferers from *gastric ulcer*, *hypertension* and *asthma* frequently have similar personality characteristics.)

The point of this is that the obsessive-compulsive character may well develop symptoms other than the ritualistic behaviour which constitute the symptoms of obsessive-compulsive neurosis; and I have seen no evidence (despite Rapaport's (1948) assumption), which suggests that obsessive-compulsive neurosis represents a further breakdown of the obsessive-compulsive character.

The two syndromes are similar in that they represent the attempts of super-ego dominated persons to ward off unconscious feelings of guilt. The obsessive-compulsive character narrowly limits his scope for emotional expression, so that there will be no chance of his doing wrong. He further strengthens repressive ego-control, and sublimates his impulses in a highly intellectualized or socialized fashion. But his behaviour is not characterized by diphasic rituals; it has no special symbolic significance; it is not a reaction to a situation of stress, but a constructive, if limiting, manner of adjustment.

The two syndromes differ, then, in that whilst obsessive-compulsive neurosis is a *specific syndrome of neurotic symptoms*, the obsessive-compulsive character is a *generalized personality pattern*, a positive way of adjustment, a *style of life*. Although the obsessive-compulsive character lives such a restricted emotional life, he cannot be termed *neurotic* unless his functioning level is being seriously reduced by his self-imposed limitations or unless his personal relationships have become seriously impaired. Indeed, this sort of person has become socially necessary, and is best suited for jobs involving meticulous detail or careful systematization (e.g. accountants, scientists, theoreticians, statisticians, regulation-bound officials, skilled tradesmen). These careful conscientious people are eagerly sought after in the business world and frequently rise to prominence.

Should obsessive-compulsive characters suf-

fer nervous breakdown—and because of their high degree of integration they seldom do—there is no evidence to suggest that they will necessarily become obsessive-compulsive neurotics, as Rapaport (1948) seems to assume. Being such emotionally controlled individuals they tend to suffer, as Wolff (1937) suggests, from such tension-symptoms as ulcer, hypertension, asthma, migraine, etc. They may develop systematized paranoid delusions (many paranoid patients have had obsessive-compulsive traits before breakdown), depressed hysterical trends (in which systematized hypochondriacal symptoms often feature), or, indeed, any sort of breakdown.

In summary, obsessive-compulsive neurosis does not inevitably, or even often, follow upon the breakdown of an obsessive-compulsive character. These two categories are not as closely connected as is often assumed, the differences tending to outweigh the similarities. These differences are reflected in the Rorschach records of the two groups.

What can we expect from the Rorschach?

The frequent failure of the Rorschach to sample obsessive-compulsive behaviour in patients suffering from obsessive-compulsive neurosis, whilst it samples such behaviour in clinically normal persons and in patients belonging to other classifications can be explained in terms of generality and specificity.

Obsessive-compulsive neurosis is a specific behavioural syndrome; and specific behaviour cannot be diagnosed by the Rorschach technique. It is not possible to diagnose suicidal attempts, delinquent acts, specific acts of violence, specific conversion symptoms, hand-washing or obsessional counting from the Rorschach.*

The obsessive-compulsive character is a generalized personality characteristic, and this is exactly what the Rorschach does sample. It

* Given a *history* of delinquency, suicidal attempts, violence, *plus* a highly unstable Rorschach, a repetition of such behaviour may be predicted.

reflects generalized modes of perceptual organization, defence and emotional expression by way of the patient's perceptions in a minimally structured situation.

The question may now be asked: Does this failure of the Rorschach to diagnose obsessive-compulsive neurotic symptoms—or any other specific behavioural symptom, matter? The answer must be in the negative, since these symptoms are easily observed or can be reported by the patient himself.

Merely to diagnose obsessive-compulsive neurosis in a patient who clearly manifests behaviour classifiable as obsessive-compulsive neurosis would not help much in the understanding or treatment of the patient. But, since obsessive-compulsive neurosis is a secondary line of defence, a 'last-ditch stand' against some other sort of breakdown, it is important to know whether the impending breakdown is likely to be neurotic or psychotic in nature. It is important to understand the conflicts and mechanisms underlying the behaviour of any particular case. This, I believe, is where projective testing is of vital importance in the understanding of a patient and in the prediction of his behaviour.

It has been stated that the obsessive-compulsive character seldom has a breakdown; but it must also be realized that those of them who attend clinics are *all* facing impending breakdown. The appearance of the Rorschach signs listed in list A should not merely label the patient as an obsessive-compulsive character; nor should it be assumed that he will develop symptoms of obsessive-compulsive neurosis. The record should be scanned to determine the significance of these signs, the mechanisms underlying them, and whether, if breakdown does occur, it is likely to be neurotic or psychotic in nature.

On what basis should classification be made?

Already implicit in this discussion has been the fundamental conflict between classification by behavioural and by dynamic manifestations. The former involves a descriptive classi-

fication of observable symptoms; the latter involves classification of the dynamics of personality organization. (Personality is assumed to be organized around needs and conflicts, and typical defence mechanisms to cope with them.)

Since different behaviour may arise from similar motives, and similar behaviour from different motives, it follows that a classification by behaviour will be less stable, less predictive than one based on the underlying dynamics of behaviour.

This is not to say that behavioural classifications have no value. It is obviously important to classify a patient as suicidal, no matter what the underlying dynamics may be. It is important to classify a person as depressed if there is some treatment which will help all depressed patients. But descriptive classifications are not much help for psychotherapy, and projective tests are not much help for descriptive classifications. As we have seen, the classification obsessive-compulsive neurosis can be misleading from the point of view of behaviour prediction; and it serves as a 'blanket term' for fundamentally different sorts of behaviour.

Projective tests were devised to assess the dynamics of personality organization (i.e. the degree of emotional control, the level of reality testing; the nature of the needs and conflicts, the mechanisms underlying the symptoms). A classification upon this basis is the best contribution a psychologist can make to the clinical understanding and prediction of behaviour, and to the eventual psychotherapy of the patient.

Summary

The problem as to why obsessive-compulsive behaviour did not correspond to the behavioural symptoms in obsessive-compulsive neurosis was investigated. Different aspects of obsessive-compulsive behaviour were distinguished:

(1) Obsessive compulsive behaviour in its general sense as repetition compulsion. This typifies *all* maladaptive behaviour, and refers

to the inability of neurotics to modify their behaviour.

(2) Obsessive-compulsive behaviour in its specific sense as a particular neurotic syndrome. This refers to the ritualized symptoms in obsessive-compulsive neurosis. Various mechanisms underlying this neurosis were described. It was concluded that this syndrome is unstable, and represents a second line of defence against some other sort of breakdown.

(3) Obsessive-compulsive behaviour as a generalized personality pattern, a style of life. This is described as the obsessive-compulsive character and differs in important respects from obsessive-compulsive neurosis. The obsessive compulsive character does not necessarily develop obsessive-compulsive neurotic symptoms in time of breakdown.

The general and specific aspects of obsessive-compulsive behaviour are often confused when diagnosis is made on behavioural criteria, thus causing discrepancies with the Rorschach diagnosis.

The Rorschach cannot diagnose or predict specific aspects of behaviour; hence obsessive-compulsive neurotic behaviour is not reflected as compulsive behaviour on the Rorschach. This does not matter much, since these symptoms will be reported by the patient himself. It is more important to understand the mechanisms underlying the behaviour from the point of view of behaviour prediction and the understanding of the patient.

Since the obsessive-compulsive character traits are generalized personality characteristics, these are sampled as compulsive behaviour on the Rorschach.

It was pointed out that a dynamic classificatory system based upon the assessment of dynamics of personality organization (i.e. needs, conflicts and defences) is the one for which projective tests were designed. It is also the one which will contribute most to the clinical understanding and psychotherapy of the patient.

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AN EXPERIMENT IN A CHRONIC PSYCHOTIC WARD

BY JULIUS MERRY*

Chronic psychotic patients occupy the vast majority of beds in mental hospitals, yet the major emphasis to-day is on the recoverable case. For various reasons, the chronic wards may receive comparatively little attention from psychiatric staff. Too often it is thought that work with recoverable cases is more interesting and more rewarding than work with the chronic psychotic patient. Even if this last statement were true, the disparity in attention displayed as between recoverable and chronic cases would be difficult to justify.

The fact is that the mental invalid does occupy the major part of mental hospital beds, and the likelihood is that this proportion will grow, for the following reasons. The expectation of life is increasing for mentally ill persons as well as for the general population. Modern physical methods of treatment rescue patients from such states as delirium, stupor, excitement and inanition, which formerly made them ready prey to terminal intercurrent illnesses. Moreover, these same intercurrent illnesses are now capably dealt with by modern chemotherapy and antibiotics. Apart from our increased ability to preserve life there is an increased demand on the mental health services. Chronic psychiatric patients of the type formerly cared for in public institutions for the chronic sick probably now find their way into mental hospitals (Affleck, 1948). There now also appears to be a tendency for families, who formerly might have cared for a dependent chronic but trouble-free relative at home, to discharge this responsibility on to the mental health service.

Pertinently related to this question of the chronic sick is the nursing problem. If most of the beds are occupied by chronic sick, nurses

will obviously spend most of their time in contact with these patients; and if nurses infer from the relatively small amount of treatment and research directed at the chronic sick that the chronic psychotic is less interesting and less important than the recoverable patient, then their job will in fact be less interesting and rewarding. Mental hospital nurses will consider themselves as reduced in status as compared with other nurses, and a period in the chronic ward will be looked on as a chore with consequent lessened efficiency.

It was with these points in mind that an experiment with a ward of chronic, largely deteriorated patients was planned. The purpose of the experiment was fourfold:

(1) To investigate, with a controlled study, the effect of social methods on the chronic psychotic.

(2) To attempt to decrease the dependence and institutionalization of this type of patient by these social methods.

(3) To increase the interest and enthusiasm of the nursing staff.

(4) To evolve a method which was not too time-consuming to the doctor in view of the pressure of his other commitments.

The ward

The ward amenities consist of a day-room, an adjoining dormitory and a garden. The day-room is a large room part of which is occupied by the dining tables and chairs. There is a big central stove which roughly separates off the dining portion from the remainder of the room. Lining the walls of the day-room are chairs and long upholstered benches. The dormitory contains thirty-seven beds with average space between the beds. Leading off from the dormitory are two single-bedded side-rooms which are used for patients requiring

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quietness or seclusion. Doors lead from the dormitory and day-room into a fenced-off garden which measures a half acre and in which are scattered some seats.

The ward contains thirty-nine female patients and their clinical classification is given in Table 1. The age distribution and duration of stay in hospital are given in Tables 2 and 3.

Table 1. *Clinical classification*

Schizophrenia	27
Paraphrenia	3
Chronic depression	1
Dementia	3
Post-encephalitic Parkinsonism	1
Huntington's Chorea	1
Epilepsy	1
Personality disorder	2

Table 2

Age in years	No. of cases
20-40	18
41-60	16
61 and over	5

Table 3

Duration of stay in years	No. of cases
0-5	7
6-10	12
11-20	14
21-30	6

The staff consisted of a sister and usually two nursing assistants for each of two day shifts. Sometimes there were three nursing assistants for a day shift. At night the staff consisted of a staff nurse.

The organization of the day for the patients was centred around the meal times. Patients were supervised at meals. They were also all escorted to the toilet before and after meals. Apart from meal times and toilet supervision, the only other regular occurrence was a weekly visit by an occupational therapist for about one hour. For the rest of the day patients were

left largely to their own devices. If the nurses had time they would encourage some of the patients to carry on with simple occupational therapy initiated by the visiting occupational therapist.

A visit to the ward would find the majority of patients in social isolation, quietly preoccupied with phantasy or hallucinosis. One or two would be engaged in quiet conversation with hallucinatory figures or voices—sometimes the conversation would be loud and abusive but apparently quite undisturbing to the remainder of the patients. Rarely did even the less sick patients converse with one another. The only frequent contact between patients was a physical one, viz. one of violence. Apart from fights and one or two homosexual associations, the patients largely had no interpersonal relationships in reality. The less sick patients did initiate some contact with the nursing staff, and the staff appeared to be the only venue for any interpersonal feelings of a positive kind. These less sick patients numbered some five or six and were well enough to help the staff in the ward domestic work. They were also well enough to have freedom of the hospital grounds. The remaining patients were not considered well enough to be let outside the ward doors, and most of them had not been outside the ward and garden for many years. When seen in the garden, the same lack of integration was observed. Patients flopped or sat about alone or marched endlessly round and round the garden railings. Sometimes homosexual partners walked round arm in arm rarely saying a word to each other. Amidst the scattered crowd of thirty-nine patients would be seen three nurses darting about encouraging and chatting to largely unresponsive patients.

The experiment

The experiment consisted in recording the incidence of (a) bed-wetting and (b) physical assaults on one another and on staff, over a period of forty weeks. The reason for choosing bed-wetting and assaults for recording purposes was that it was unlikely that these

behaviour characteristics would be overlooked. The period of forty weeks was divided into four phases.

Phase 1. This was a period of five weeks in which the prevailing medical and ward routine was maintained. The doctor arrived and made his way to the sister's office. There, having greeted the sister, he read and signed the day and night reports. He initialled the medicine books and prescription cards. He then interviewed any patients who had requested an interview or whom the sister thought should be seen for physical or mental reasons. E.C.T. was administered when necessary, and if there

and greeted the patient by her Christian name with a 'Hello' or 'Good morning'. It was hoped that the doctor's extended hand would be accepted, but in the case of the more withdrawn and detached patient, the doctor or sister would passively move the patient's hand into a handshake with the doctor. The doctor would then make brief inquiries as to how the patient was feeling or whether she had been visited or would comment on the weather, hoping to draw the patient into a brief conversation of a few sentences. The more disinterested patients would be encouraged to participate in such brief exchange of words.

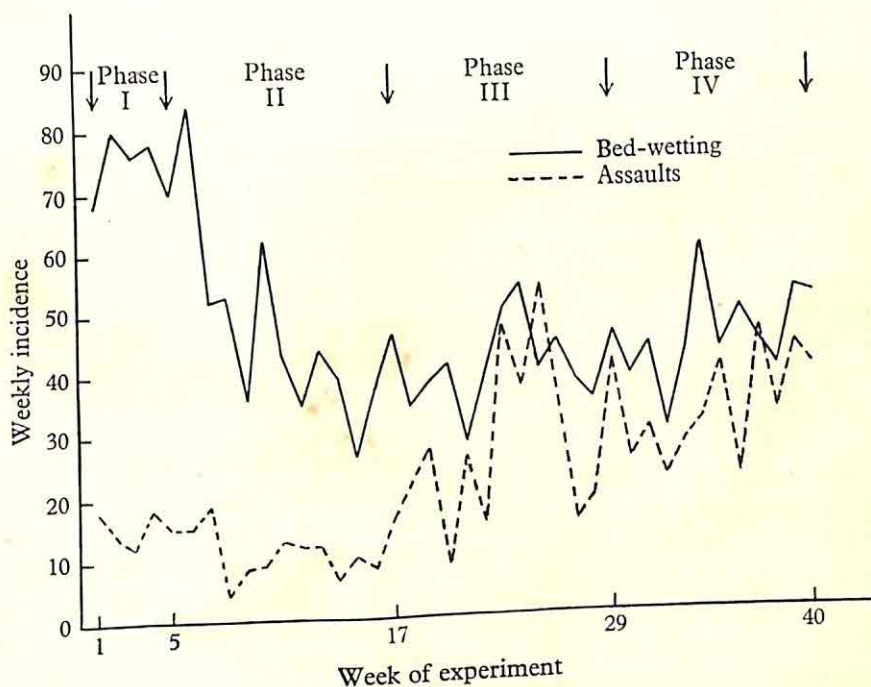


Fig. 1

were no statutory examinations to be made, he would then leave the ward.

Phase 2. In this period, lasting twelve weeks, additions to the ward routine were introduced.

The office work having been completed and requested interviews and examinations dealt with, the doctor, accompanied by the sister, made a tour of the day-room and dormitory. Every patient was approached in turn. The doctor then proffered his hand for a handshake

Having completed the tour, the patients were then directed into the garden. There the patients were divided into three groups, each group being supervised by a nurse or sister. The members of a group stood in a circle facing inwards. The nurse would then tour the circle and encourage each patient to greet by Christian name and to shake the hand of the patient on her right side. Then the patients would join hands in the circle which would then move in

clockwise and anti-clockwise directions to the direction of the nurse. This would be followed by a game in which a gaily coloured beach ball would be thrown by one patient to another patient named by the nurse. The very withdrawn patients would be assisted by the nurse in the action of throwing in the desired direction. If this was not achieved, the nurse would encourage the relatively inaccessible patient to carry the ball to the nominated patient and hand it over.

These activities in the garden lasted between thirty and forty-five minutes and were repeated in the afternoon.

Phase 3. This phase lasted twelve weeks. Here, in addition to the routine of phase 1, the morning tour by the doctor and sister as in phase 2 was made. The patients were then allowed out into the garden and left largely to their own devices. The doctor then returned to the sister's office and interviewed three patients in succession. These interviews occurred daily during this phase and were arranged in alphabetical order and lasted about five minutes each. Thus each patient was seen about once a fortnight.

Phase 4. This period, lasting eleven weeks, consisted of a programme identical with that of phase 1.

During the whole of the experiment there was only one change in the patient population. This occurred about half-way through the experiment when a patient, who was not a bed-wetter and not prone to violence or to provocation of others, was exchanged for another similar patient. The nursing staff was largely

the same throughout the experiment, but one or two changes in nursing assistants occurred. The administration of hypnotics and sedatives was not varied during the phases of the experiment. E.C.T. was confined to three cases only, these cases receiving maintenance E.C.T. for reasons other than the suppression of impulsive behaviour or bed-wetting.

Results

In assessing the significance of the differences between means, the ranking method of Festinger (1946) has been used, rather than the usual *t* test of significance, because there was no reason to believe that bed-wetting or assaults are normally distributed in the parent populations. In the small sample studied here there

Table 4. *Mean frequencies of bed-wetting and assaults in the four phases*

	Phases			
	1	2	3	4
Bed-wetting	74.4	46.4	40.8	45.3
Assaults	15.4	11.0	28.8	32.8
Total	89.8	57.4	69.6	78.1

was certainly no indication of a normal distribution. Festinger's method, therefore, which does not assume a normal distribution, was regarded as most suitable for the data.

It is seen that in phase 2 there was a significant decrease in the incidence of bed-wetting and an almost significant fall in assaults. These improvements were maintained throughout

Table 5. *Differences between means and *d* and *p* values for bed wetting and assaults*

Phases	Bed-wetting			Assaults			Total		
	Diff. between means	<i>d</i>	<i>p</i>	Diff. between means	<i>d</i>	<i>p</i>	Diff. between means	<i>d</i>	<i>p</i>
1 and 2	28.0	5.00	0.01	4.4	3.60	≈ 0.05	32.4	5.00	0.01
2 and 3	5.6	1.17	—	17.8	4.58	0.01	12.2	1.83	—
3 and 4	4.5	2.09	—	4.0	1.36	—	8.5	1.73	—
1 and 3	33.6	6.00	0.01	13.4	4.00	0.05	20.2	3.20	—
1 and 4	29.1	5.50	0.01	17.4	5.50	0.01	11.7	2.80	—

phase 2. In phase 3, compared with phase 2, there was a small but not significant fall in bed-wetting and a very marked increase in assaults. In phase 4, the trends in the incidence of bed-wetting and assaults showed slight but progressive rises compared with those in phase 3. An appraisal of the weekly totals of assaults and bed-wetting reveals a significant fall during phase 2, with a rapid and progressive increase in phases 3 and 4, so that in the latter part of phase 4 the total incidence approached and was not significantly lower than in phase 1.

slight but not significant decrease, while the increase in physical assaults was marked. This may have been due to the fact that in phase 2 a good deal of energy was externalized in the group activities and also because there was an increase in the interpersonal contact, however slight. Social therapy may have helped to mobilize and canalize aggression in a socially acceptable manner. This outlet was now blocked in phase 3, and it is suggested that the mobilized aggression in the latter phase was being expressed more directly in the form of

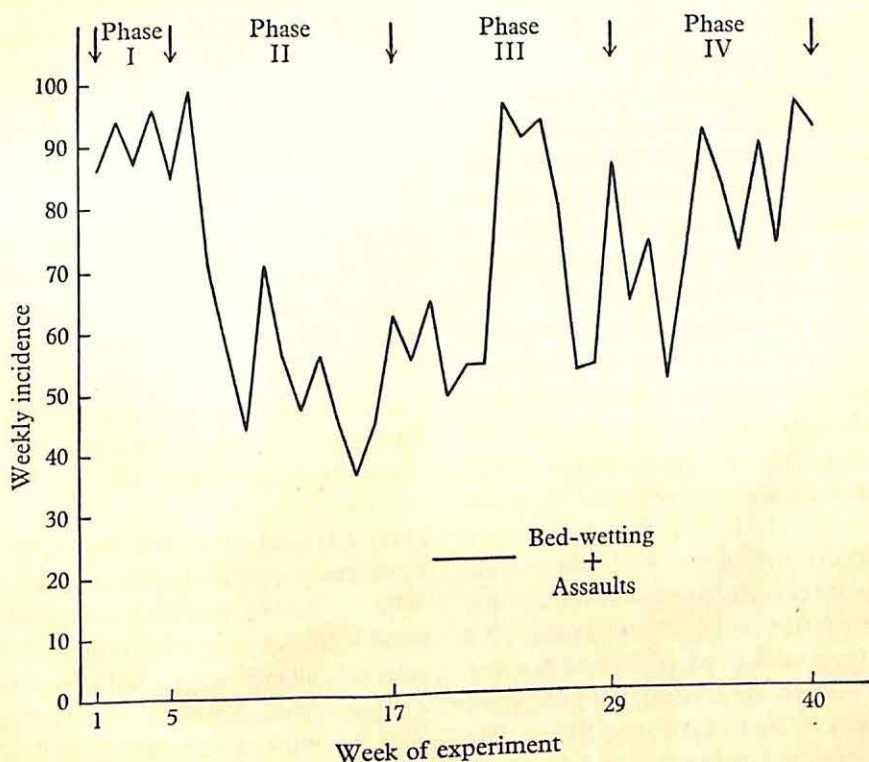


Fig. 2

Discussion

It is interesting to speculate on the reasons for, and the significance of, the findings. It appears that the treatment programme of phase 2 produced a marked improvement in the behaviour characteristics recorded. In phase 3, where the daily group activities were replaced by short individual interviews at fortnightly intervals, bed-wetting showed a

assaults. In phase 4 this opportunity to express aggression in a socially acceptable way was even more limited. Some workers would interpret the group activities as being outlets for libidinal and aggressive drives. Most workers would agree that halting the withdrawal of patients, from what is to them a painful and hostile world, and making them participate in friendly, helpful groups was largely responsible for the improvements achieved.

From Fig. 2 and Tables 4 and 5 we see that the totals in phases 1, 2 and 3 approximate, although the component figures are different in these phases. If one were to assume that bed-wetting is an aggressive act of an infantile dependent kind (Fenichel, 1946), it would appear that overt aggression in this wider sense was more socialized by the group activities in phase 2. Moreover, the decrease in bed-wetting was an indication of a lessening of dependence, if only in one aspect. It is tempting to suggest that physical violence and bed-wetting were alternative expressions of hostility, i.e. if no outlet like group activities was available to canalize aggression, then this was expressed as either violence or bed-wetting.

When individual cases were examined during phase 2, there was no clear indication that certain individuals improved and not others. What appeared to have occurred in phase 2 was a general lowering of tension in the ward as a whole.

The picture of phase 1 is not an uncommon one in mental hospital practice. It is a picture of lack of method rather than lack of interest in the chronic mentally sick. The doctors and nurses are faced with an apparently hopeless and thankless task. They are bewildered and do not know where to start. Thus, their labours are largely confined to dealing with immediate problems like assaults, and between these crises to anticipate the next disturbance. This lack of method and practice makes nursing in a chronic ward dull. Nursing staff need to be inspired with a more positive policy in order to cope with aggressive and degraded patients. Even if the nursing staff were increased they would still encounter difficulty in dealing with the chronic psychotic. What is needed, even more than increase in nursing staff, is some form of organization—a means of decreasing the disintegration of the patient mass. A social order is necessary so that an awareness of function in the ward community can emerge in the individuals who compose the group. The level of awareness of social role will of course depend on the degree of sickness of the person concerned. Thus the only voli-

tional participation by a chronic schizophrenic may amount to shaking the hand proffered by the doctor or standing in and not moving out of the circle formed by her group of patients. It was interesting to see the identification of the less disturbed patients with the nurses. Thus, they would encourage the more withdrawn patients to fit into the group circles, and would prompt these patients in the various manoeuvres each group undertook. Some of them supervised the more sick patients outside the organized group activities; e.g. they might walk round the garden with such a patient. During phase 3, and more obviously in phase 4, such identification tended to die out.

The nurses too discovered a role. From being supervisors of toilet matters they became consciously involved in a treatment scheme. Instead of darting hither and thither, calming this patient and stimulating that patient, they became responsible for their group. With the development of their place in the scheme of things, there was an accompanying decrease in their own tension formerly developed in the face of an apparently imponderable situation. The nurse now knew what she had to do and hence was more purposeful. She became more enthusiastic in sympathy with the increased interest displayed by the doctor, for her work was now more clearly therapeutic.

The present experiment was carried out in a ward of chronic and largely deteriorated patients. There is no doubt that community and group techniques are applicable with great benefit to patients and staff of all wards in mental hospitals. This is not a plea to substitute such techniques for the now established physical treatments, but for these social methods to be employed as adjuvants to the physical methods. The great benefits achieved by these physical therapies can be consolidated and developed by social methods. The type of community technique will vary with the level of sickness of the particular ward. Thus at one end of the scale would be techniques as practised at the Social Rehabilitation Unit of Belmont Hospital (Jones *et al.* 1952), or at Warlingham Park Hospital (Martin *et al.*

1954). These workers dealt with neurotics, psychopaths and psychotics who had made a good remission, and these patients discuss individual and community problems and initiate and develop changes in their community. Dealing with more disintegrated patients, Abrahams (1948) adopted the role of 'therapist—leader—participant and observer' in a chronic ward and helped to transform the ward into a more integrated community through the examination of the members' interrelationships. There was a consequent increased awareness of these relationships and a lessened need for the adoption of psychotic defences. Also dealing with chronic psychotic patients, Willner (1952) successfully sent out five of fifty participants on 'convalescent status'. She employed simple lectures on mental hygiene and also encouraged active participation on the part of patients in the forms of psychodrama and musical performance. At the other end of the scale is the patient group studied in this paper. Here with a community containing a high proportion of relatively mute, degraded and aggressive patients, participation is encouraged to at least a mechanical level, i.e. largely non-verbal methods are employed. In the wards where discharges of improved patients occur, these discharges provide an additional stimulus to the nurse and doctor. In those wards where sufficient improvement to warrant discharge is

unlikely, charting the weekly incidence of bed-wetting or assaults gives the nurses a visual representation of their efforts.

Summary

The chronic psychotic patients occupy the vast majority of mental hospital beds, but most interest is paid to the recently admitted case. It is probable that in the future, chronic patients will occupy an increasing proportion of hospital beds. An experiment is described in a chronic ward of thirty-nine female patients showing that very simple techniques can effect some improvement on chronic deteriorating patients, e.g. in bed-wetting and assaults. It is suggested that all types of patients may benefit by community techniques which will vary with the degree of contact with reality maintained by the patients. It is also urged that social methods be used as adjuvants to the physical methods now practised. It is hoped that such techniques will increase the interest and status of the nurse.

I am indebted to the late Dr D. E. Sands, Physician Superintendent of St Ebba's Hospital, for encouraging me to carry out this experiment. My thanks are due to the nursing staff for their co-operation and especially to Sisters Cummings and Reynolds who recorded the details. Finally, I am grateful to Dr M. Desai for his help with the statistics.

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SIR KENELM DIGBY ON 'FOLIE A DEUX'.
AN HISTORICAL NOTE

BY H. PHILLIP GREENBERG,* RICHARD A. HUNTER†
AND IDA MACALPINE‡

I... pray you to remember, that when two Lutes, or two Harps, near one another, both set to the same tune, if you touch the strings of the one, the other consonant harp will sound at the same time, though no body touch it....

SIR KENELM DIGBY, 1658

The interesting phenomenon of one person inducing mental illness in another is not uncommon, but little understood, and still presents a challenge to all theories of mental illness (Greenberg, 1954).

Recognition of induced psychosis or *folie à deux* as a psychiatric picture is generally credited to the nineteenth-century French and German schools of descriptive psychiatry. Mass or epidemic psychoses had been studied historically (Hecker, 1844; Calmeil, 1845), and at first hand (Constans, 1863), but these observations did not further the delineation or understanding of clinical cases of induced psychosis.

Claims for priority

Régis (1880), describing *folie simultanée*, gave priority to Lasègue & Falret who coined the name *folie à deux* in a paper read to the Société Médico-Psychologique in 1873, published in 1877. Lasègue & Falret (1877) in turn referred only to one earlier clinical report by Dagron (1861). In a later 'rectifying note', Régis (1885) transferred priority to Baillarger (1860) who had reported 'Some examples of *folie communiquée*', and this has since been accepted in French psychiatric literature as the

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first clinical description. The publications of a number of other French authors, including Esquirol (1811), were ignored.

In Germany, Jörger (1888), while acknowledging the French contributions, claimed priority for his countryman Berlyn (1819) who had described mother and son sharing identical hypochondriacal delusions 'quickly healed by psychic means'. Jörger also drew attention to Hofbauer's (1846) paper on *Infectio psychica*, but neglected Ideler's (1838) discussion and case histories entitled 'Madness through the imitative instinct'. Feuchtersleben (1845) had also discussed the contagion of delusional ideas through 'pathological sympathy', and Finkelnburg (1861) described twelve cases in his major contribution 'The influence of the imitative instinct on the spread of sporadic insanity'.

The first American authors (Seguin, 1879; Kiernan, 1880; Spitzka, 1883) to describe such cases adopted the conclusions of the French. The Italians, judging from Seppilli's (1890) review, derived their views essentially from French and German writers, as did Tuke (1887, 1888) in England in his papers on 'Communicated insanity'.

Earlier English literature

All authors seem to have overlooked a great deal of relevant earlier English literature. Whytt (1764) wrote that 'there is a still more wonderful sympathy between the nervous systems of different persons, whence various motions and morbid symptoms are often transferred from one to another, without any corporeal contact or infection', which Primrose (1638) had ascribed to 'simpathy, antipathy, contagion, fascination and other such trifles'.

Haygarth (1800) noted that 'nervous disorders are very liable to be communicated'; Prichard (1822) spoke of the multiplication 'by the influence of sympathy' of severe mental disturbances, and Millingen (1837) suggested that 'transmission of mental disease may be attributed to morbid moral and physical sympathies, which might be avoided by withdrawing the persons exposed to it from the sphere of their action'.

We will not further digress into the history of this subject here; it is our purpose to draw attention to a hitherto unnoticed account by Sir Kenelm Digby of the induction of insanity; he anticipated, indeed almost paraphrased, Lasègue & Falret's observations by more than 200 years. Digby (1603-65), writer, naval commander, diplomatist, philosopher, amateur scientist, was a member of the first Council of the Royal Society and friend of the eminent scientists and philosophers of his time.

In 1658 there appeared 'A Late Discourse made in a Solemne Assembly of Nobles and Learned Men at *Montpellier in France*; by Sr. *Kenelme Digby*, Knight, &c. Touching the Cure of Wounds by the *Powder of Sympathy* ... Rendred faithfully out of French into English by R. *White. Gent.*' The 'Powder of Sympathy, doth naturally, and without any Magick, cure wounds without touching them.' It was only necessary to soak bandages from the wound in a solution of the powder. Meantime 'I advise you to cast away all your playsters, onely keep the wound clean, and in a moderate temper, twixt heat and cold'—to an aseptic age sufficient explanation of its efficacy. Digby, however, was at pains to explain its action by an exposition of the nature of 'sympathy' in its physical and psychological connotations, and here the relevant passage occurs.

Lasègue & Falret concluded that: the 'active' partner being more intelligent or in a position of authority, creates the delusions and imposes them on the 'passive' subject or subjects; an isolated and prolonged intimacy seems necessary. Heredity does not supply an overall explanation. Delusions are more likely

to be accepted in so far as they are plausible and play on the hopes and fears of the passive subject; often they are accepted only after a fruitless and exhausting struggle to restore the sanity of the person primarily ill: 'the indifferent escape both this useless travail and its consequences'. The prognosis for secondarily affected individuals is invariably good.

Sir Kenelm Digby's account

All these observations are contained in Digby's account:

Now lets consider how the strong imagination of one man doth marvailously act upon another man, who hath it more feeble and passive. We see dayly, that if a person gape, those who see him gaping, are excited to do the same. If one come perchance to converse with persons that are subject to excesse of laughter, one can hardly forbear laughing, although one doth not know the cause why they laugh.* If one should enter into a house, where all the World is sad, he becomes melancholy.... Women and Children being very moist and passive, are most susceptible of this unpleasing contagion of the imagination. I have known a very melancholy woman, which was subject to the disease called the Mother,† and while she continued in that mood, she thought her self possessed, and did strange things, which among those that knew not the cause, passed for supernatural effects, and of one possessed by the ill spirit: she was a person of quality, and all this happened, because of the deep resentment she had for the death of her Husband: She had attending her four or five young Gentle-

* Cf. Bacon (1627): '*Motions* passe from one Man to another, not so much by Exciting Imagination; as by Imitation; Especially if there be an Aptness or Inclination before. Therefore *Gaping*, or *Yawning*, and *Stretching*, doe passe from Man to Man... So that if another be apt and prepared to doe the like, he followeth by the Sight of another. So the *Laughing* of another maketh to *Laugh*.'

† 'The disease called the Mother' was thought to be caused by noxious vapours arising from the matrix or uterus, sometimes even by that organ straying from its appointed place as into the throat in 'Suffocation of the mother'. The concept is still current in psychiatric terminology under its Greek name hysteria.

women, whereof some were her Kinswomen, and others served her as Chambermaids. All these came to be possessed as she was, and did prodigious actions. These young Maids were separated from her sight, and communication, and as they had not yet contracted such profound roots of the evil, they came to be all cured by their absence; and this Lady was also cured afterwards by a Physitian, which purged the atrabilious humours, and restored her matrix to its former estate, there was neither imposture, or dissimulation in this.

I could make a notable recital of such passions that happened to the Nunnes at *Lodun*; but . . . I will forbear speaking thereof at this time, otherwise then to pray you to remember, that when two Lutes, or two Harps, near one another, both set to the same tune, if you touch the strings of the one, the other consonant harp will sound at the same time, though no body touch it, whereof *Galileo* hath ingeniously rendred the reason.

Further

all the effects of a strong and vehement imagination working upon another more feeble, passive, and tender, ought to be more efficacious in the Mother acting upon her son, then when the imaginations of other persons act upon them who are nothing to them.

Some contemporary observations

Among Digby's learned contemporaries, the immortal Harvey (1651) had noted in passing the sharing of delusions: 'a noble lady who had borne more than ten children . . . being married to a second husband, she considered herself pregnant, forming her judgement not only from the symptoms on which she usually relied, but also from the movements of the child, which were frequently felt both by herself and her sister, who occupied the same bed with her. No arguments of mine could divest her of this

belief. The symptoms depended on flatulence and fat'. The prolific Robert Boyle (1663) wrote 'it often enough happens, that when a Woman is in a Fit of the *Mother*, another Hysterical person standing by, is by reason of a peculiar Disposition of her Body, soon infected with the like strange discomposure'. The theologian and classical scholar Casaubon (1655) had suggested 'that learned Naturalists and Physicians may . . . consider . . . Whether it be probable or possible, that naturall Ecstasies and Enthusiasmes, such as proceed from naturall causes merely, should be contagious: though not contagious in the same manner as the Plague, or the Pox is; yet contagious in their kind'; at the same time he firmly upheld the reality of demoniacal possession. The more enlightened and observant Digby denied the influence of 'supernatural effects' and possession 'by the ill spirit', and substituted a psychopathology. How advanced his views were can be seen from the fact that six years after his lecture the expert medical evidence of Sir Thomas Browne sent two women to the gallows for witchcraft. Even the great Willis (1667) writing on 'The Pathology of the Brain and Nervous Stock' stressed 'that very oftentimes most admirable passions are produced in the humane body, by the delusions of the Devill . . . by some means he enters himself into the humane body', though he is not 'presently or allways to be brought upon the stage'.

Summary

Attention is drawn to Sir Kenelm Digby's description of the condition now known as induced psychosis or *folie à deux* more than 200 years before Baillarger, and Lasègue and Falret, to whom priority is generally ascribed.

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REVIEWS

The Two Faces of Man. Two Studies on the Sense of Time and on Ambivalence. By JOOST A. M. MEERLOO. (Pp. x+237. \$4.00.) New York: International Universities Press, Inc. 1954.

Time Distortion in Hypnosis. An Experimental and Clinical Investigation. By LINN F. COOPER and MILTON H. ERICKSON. (Pp. ix+191. \$4.00.) London: Baillière, Tindall and Cox (for the Williams and Wilkins Company). 1954.

These two books have the theme of Time in common, but otherwise could scarcely be more different.

Time Distortion in Hypnosis itself consists of two very unequal parts. More than two-thirds consists of reprints of previous papers by Cooper, full of detailed, circumstantial and repetitive accounts of experiments, all showing that hallucinated (or remembered) activity can cover a much longer period subjectively than objectively, in hypnosis (as we already know it can in dreams). Possibly, then, motor or verbal relearning may thus be rapidly practised under hypnosis. The last forty pages is an account of the clinical use of 'time distortion' for rapid recall in hypnotherapy—an interesting, if not widely applicable, technique. Throughout the book, far too much space (and time) is spent on repetitive lists of instructions and methods in completely inessential detail for most readers. The authors should have asked themselves whether they were publishing a report or a beginners' instruction manual. Many single-column lists cover an aggregate of many pages, and say very little at all. Cut, this book could be less than fifty pages. Despite the laudatory foreword by Dr Harold Rosen, this book is a poor \$4 worth.

The Two Faces of Man is a very different book, a thoughtful work concerned with the philosophical basis of science rather than its technological superficialities. This book also is divided into two halves. The first, *Father Time*, is concerned with time metaphysically and biologically, with time as inner experience of rhythm and time as imposed on us by external events, with psychological time and the

experience of continuity. Temporal and causal relationships, the traumatization of the past and the apprehensive anticipation of the future, timelessness and precognition, time in symbols—all these aspects are discussed with scholarly, clinical and intuitive insight. *The Two Faces of Man*, the book's second half, is concerned with ambivalence and ambiguity, and is closer to the occupations and preoccupations of the medical psychologist. Here some of the writing is curiously clumsy, cumbrous, couched in strange idioms, and it seems probable that the author, dealing with a concept clouded and equivocal by its very nature, has been driven to think first in his original, native language and then to translate as well as the thought allows. It is not possible to summarize the argument here, but each chapter is full of suddenly sparkling jewels of phrases to enrich the reader's own thoughts. The little phrase 'the trauma of walking' (p. 171) and the insight into schizophrenics, whose 'unity of experience of reality through different senses is broken... they live in different time fragments... not able to connect and integrate with each other'—these are only two examples. This is a thoughtful and thought-stimulating book. J. D. UYTMAN

Theories of Perception and the Concept of Structure. By FLOYD H. ALLPORT. (Pp. xxii+709. 64s.) London: Chapman and Hall. 1955.

This book deserves a special place in every psychologists' library. It is a classic work, not only because of what it achieves as a scholarly review and critical analysis of the various theories of perception, but also in the example it provides of a painstaking and constructive search for really unifying concepts. One aim in writing the book was to bring together the scattered and unco-ordinated theories of perception and subject them to a systematic overall study to clarify the position for students and experimenters. This the author has achieved abundantly.

Out of this constructive endeavour Allport develops his own concept of structure, 'that a

perceptual act is really a dynamically operating structure, that it presents the very picture of a self-delimited and self-contained structuring of on-goings and events—a structure that is closely knit, yet not isolated from surrounding happenings, that is built up of the events of on-going and interacting elements—events that have assembled, as it were, through space and time, a structure that can endure, that is flexible and yet ordered and resistant to disruption, that has both a non-quantitative and a quantitative aspect, that pools or averages its energies, that ‘gears in’ with some adjacent structures and opposes or reduces others, and that operates as self-closing or self-renewing cycles.’ Here the achievement may be more open to criticism, which, indeed, is what the author invites, yet stated in this way the concept does bring together much of the dynamic content from current theories of perception.

For the clinical psychologist a very large part of this book is stimulating for this very reason, that it brings out so much in perceptual theory which may be integrated with the dynamic viewpoints in psychopathology. The understanding of behaviour from a perceptual frame of reference, aetiologically and operationally, for example, with reference to the processes of cognition and learning, may contribute much to the clarification of concepts derived from psychotherapy. This will require, however, attention to the unconscious meanings, as well as the more veridical meanings involved in such processes, and it is here perhaps that the clinical psychologist will find Allport's work inadequate. This inadequacy, however, is common to most of the thinking and experimentation about perception, with the possible exception of Bruner and Postman's ‘hypothesis’ theory. Even so it is hoped that this book will find its way into the hands of many medical and non-medical psychologists who are concerned with psychotherapy, for it brings together a rich heritage of knowledge and a disciplined approach which may help them to sharpen their own concepts.

In spite of its length and the vast amount of material covered in this volume, the writing and presentation make it a very readable book. Allport is able to convey his own enthusiasm and his sincerity of purpose while yet retaining his objective viewpoint.

H. PHILLIPSON

Mental Health and Infant Development.
Edited by KENNETH SODDY. (2 vols., pp. 597.
25s. each.) London: Routledge and Kegan
Paul Ltd. 1955.

In the summer of 1952, an international seminar on Mental Health and Infant Development was held at Chichester, England, under the auspices of the World Federation for Mental Health. The proceedings, selected and edited by Dr Kenneth Sody, make up the contents of these two volumes, the first being devoted to Papers and Discussions, the second to Case Histories. This is a particularly difficult kind of publication to evaluate. Proceedings of congresses, seminars and the like often take the form of badly produced, greatly compressed, indigestible summaries which may serve to remind a former participant of the original occasion, but make no appeal at all to anyone else. To a considerable extent these pitfalls have been avoided here. The volumes are well produced and the papers read comfortably, many obviously being in their original form. The section on ‘Infant Relationship Formation’, with papers by René Spitz, John Bowlby, Jenny Aubry, Juliette Favez-Boutonier and Anna Freud, contains a great deal of valuable material, some of which has not been published before. Elsewhere, however, there is a quite remarkable disparity in the quality of the various papers. The editor, who doubtless must be tactful at both the personal and the national level, is perhaps less to be criticized than those responsible for the original selection of seminar material. Vague generalizations interspersed with clinical anecdotes can, if well put together and effectively presented, produce a stimulating lecture. Translated into cold print the effect is quite otherwise. Prof. MacCalman is to be congratulated on demonstrating that a scientific paper is compatible with literary merit. The case histories are really longitudinal studies of families, highlighting the development of one member. Detailed factual recording of this kind, in most instances deliberately, without any attempt at correlation or evaluation of the facts, is not the most palatable material, and is of doubtful value presented to a reading public in this way. It was an excellent idea to include the informal discussions which contain much of interest.

F. H. STONE

Psychocutaneous Medicine. By M. E. OBER-MAYER. (Pp. 487. 70s.) Oxford: Blackwell Scientific Publications. 1955.

This is a good book which deserves to be widely studied, though its title is unfortunate. The author's achievement does not entirely match his intentions. Commendably a chapter on the 'Dynamic Considerations of the Psyche' has been introduced, written by a psychoanalyst, but it compares ill with the rest of the book. Whereas the latter is well informed, up to date, and abreast of at least a high proportion of the world literature, the former pays no regard at all to psychoanalytic developments which may be of great significance, not even to discuss them critically. Psychoanalysis is approached as instinct theory only, object relationships are barely mentioned, and their significance in the formation of the personality not discussed at all. Spitz only is briefly quoted as drawing attention to the significance of mother as mother to a child. Yet skin disease occurs in infants when the ego is in a very primitive state and the body aspects of that ego and its objects are still of major importance, suggesting that one of the tasks of psychoanalysis as applied to psychosomatic medicine is to explore the very earliest phases of ego development. The role of phantasy and how transference is used as the vehicle of understanding and treatment receives no mention.

It is a sobering thought after reading the psychiatric contributions to the study of the disease states described, how far we are from an adequate understanding and how much needs to be done.

It must be said that the author is ill served by his publisher. The book may not be to English taste and custom, but it weighs no less than 34 oz., which means that it cannot be held in comfort for long, and even after some months of use the smell of the printing ink and paper is still so strong as to be really unpleasant at first and to pervade the room.

R. E. D. MARKILLIE

Etiology of Chronic Alcoholism. Edited by OSKAR DIETHELM. (Pp. 229. 50s.) Oxford: Blackwell Scientific Publications. 1955.

The monograph is the result of a five years' research project at the Payne Whitney Psychiatric Clinic, New York. It contains a general survey of contributions by Oskar Diethelm, a study of psychopathology and character structure by Mary Jane

Sherfey, a lengthy biochemical investigation by M. Freile Fleetwood, a study of familial and personal backgrounds, including constitutional and endocrine features by Manfred Bleuler and finally a cultural study of alcoholism in the Cantonese quarter of New York by Milton Burnett.

It is quite an impressively thorough work, and yet having read it, I do not feel that my non-specialist knowledge of alcoholism has been greatly extended. This personal reflexion may be in part due to there being no obvious connecting link or sign of mutual co-operation between the various contributors. For instance, the diagnostic classification used by Manfred Bleuler does not have any clear connexion with that used by Sherfey in her psychopathological investigation. Most of the cases have been treated psychotherapeutically but no detailed presentation of the psychopathology is given, and treatment is not dealt with.

The biochemical section is of considerable interest. In it, it is shown that three different substances can be found in the blood corresponding to the emotional states of anxiety, tension and resentment, the last especially characterizing alcoholism. This section is clearly the result of much thorough work, yet it is chaotically presented. Some of it is statistically validated, but other conclusions appear as being presented on the flimsiest grounds.

This book should be of value to anyone engaged in work with alcoholics, although it gives little direct help regarding therapy.

R. D. SCOTT

The Nature of Hypnosis. By PAUL SCHILDER, M.D., Ph.D. Translated by GERDA CORVIN. (Pp. 204. \$4.00.) New York: International Universities Press. 1956.

Paul Schilder's contributions to psychological medicine were based upon a sound knowledge of general medicine, neurology, clinical psychiatry and psychotherapy in its widest sense. Consequently his observations on the integration of the biological and psychological aspects of hypnotism have a distinction absent from the popular handbooks on the subject.

This volume is a new translation from the German of two monographs: *The Nature of Hypnosis* (1921) by Schilder and *A Textbook of Neuroses* (1926) by Schilder and Otto Kanders. For some reason only Schilder's name appears on

the title page. Advances in the study of hypnosis have been so few in recent years that this book, written more than thirty years ago, is quite up to date. Schilder believed that modern psychotherapy started with Freud, and although he diverged from Freud's teaching he was deeply influenced by it—as is seen in the exposition of the phenomenology, technique, value, and limitations of hypnotism. Post-graduate students of psychiatry and psychotherapists—particularly those who have never used hypnosis—will learn a lot from this lucid and balanced contribution.

One of the best chapters is on *specific hypnotherapy*. Amongst other matters the author shows how valuable hypnosis can be in the treatment of established organic disease. The basic disorder may be unaffected but the patient's attitude towards the illness can be influenced, and this produces an optimistic, as opposed to a gloomy, clinical atmosphere. Gynaecological disturbances, and the broad group of ailments now called psychosomatic, receive short but precise notice.

Rather surprisingly the work of the Scotsman, James Braid, and his influence on the French school of suggestion-therapy has been overlooked.

Unlike most writers upon hypnotism, Schilder presents his views with modesty and clarity. He has no illusions about hypnosis as a panacea, but he demonstrates beyond yea or nay that it has a place as one—and only one!—of the many therapeutic measures.

E. A. BENNET

A Handbook of Medical Hypnosis. By GORDON AMBROSE, L.M.S.S.A. and GEORGE NEWBOLD, M.B. Forewords by WILLIAM MOODIE, M.D. and WILLIAM S. KROGER, M.D. (Pp. xii+249. 21s.) London: Baillière, Tindall and Cox. 1956.

In the eighteen-twenties mesmerism was extensively used in obstetrics and—hypnotism having deposed mesmerism—similar treatment has been given, episodically, ever since. In recent years interest has once more been focused on hypnosis and suggestion in obstetrics. Two chapters are devoted to the subject and they provide a fairly complete survey of the indications for this form of treatment. For enterprising general practitioners,

who may be interested in hypnosis, these chapters contain much of practical value.

A description is also given of hypnotherapy in gynaecology, dermatology, paediatrics, minor surgery and the applications of hypnosis in general medicine as well as in the treatment of neurosis.

The volume is well arranged and a satisfactory index is provided. Little of the material is new; but it is convenient to have it assembled. The hypnotist must have complete confidence in himself and the authors of this book are not lacking in this quality.

The provision of two forewords is unusual and hardly necessary. Dr Moodie provides an excellent annotation upon the place of hypnosis in therapeutics, particularly in the disorders of childhood. Professor Kroger, in the second foreword, advocates a more general application of hypnosis in obstetrics.

E. A. BENNET

Hypnotic Suggestion. By S. J. VAN PELT, M.B. (Pp. xi+76. 8s. 6d.) Bristol: John Wright and Sons Ltd. 1955.

'The essence of the hypnotic condition is the induction of a habit of abstraction or mental concentration.' So wrote Braid more than a century ago. Hence the author of this little book is rash in advancing his 'original theory of the nature of hypnosis as a form of super-concentration of the mind'. Dr van Pelt considers that all psychoneuroses originate in some incident(s) possessing 'real emotional significance'. This simple theory which discards the usual subdivisions (and presumably the differing psychopathology) of the psychoneuroses leads to the conclusion that every form of psychoneurosis can be satisfactorily treated by hypnosis. Further, so the argument runs, these theories, unlike Freud's, are capable of experimental proof. Freud's theory of conflict and repression was in fact supported by experimental proof and the proof has been published. No details are given of the experimental proof on which Dr van Pelt relies.

Illustrative case histories of patients restored to health by hypnotic suggestion occupy about a third of this small volume. The failures—from which we might learn so much—are not recorded; nor are the contra-indications specified.

E. A. BENNET

PROCEEDINGS OF THE MEDICAL SECTION OF THE BRITISH PSYCHOLOGICAL SOCIETY

The proceedings from the first meeting (14 May 1919) to the end of 1933 are given in *The British Journal of Medical Psychology*, vol. 13, part 4; for the year 1934 in vol. 14, p. 365; for 1935 in vol. 15, p. 341; for the years 1936, 1937, 1938 in vol. 18, part 2, pp. 283-4; for the years 1939, 1940, 1945, 1946 and 1947 in vol. 21, part 1, p. 80; for the first six months of 1948 in vol. 21, part 4, p. 289; for the remainder of 1948 and 1949 in vol. 22, parts 3 and 4, p. 225; for the first six months of

1950 in vol. 23, parts 3 and 4, p. 234; for the remainder of 1950 and the first six months of 1951 in vol. 24, part 4, p. 316; for the remainder of 1951 and the first six months of 1952 in vol. 25, part 4, p. 268; for the remainder of 1952 and the first three months of 1953 in vol. 26, parts 3 and 4, p. 341; for the remainder of 1953 and the first six months of 1954 in vol. 27, part 4, p. 272; and for the remainder of 1954 and the first six months of 1955 in vol. 28, part 4, p. 280.

- 270. 26 October 1955. M. FORDHAM, A. B. J. PLAUT and ROBERT MOODY. Jung's Contribution to Analytical Thought and Practice (on the occasion of Prof. C. G. Jung's 80th birthday).
- 271. 23 November 1955. General Business Meeting.
- 272. 14 December 1955. J. LAVER. The Psychology of Fashion.
- 273. 25 January 1956. T. FERGUSON RODGER. The Other Man's Point of View. (Address from the Chair.)

- 274. 22 February 1956. Extra-Ordinary Business Meeting.
- 275. 21 March 1956. H. J. EYSENCK. Psychological Theories and Psychiatric Practice.
- 276. 25 April 1956. T. FREEMAN and A. MCGHIE. The State of the Ego in Chronic Schizophrenia.
- 277. 30 May 1956. D. G. LEYS and R. MACKETH. The Psychological Factor in the Work of the Paediatrician.





